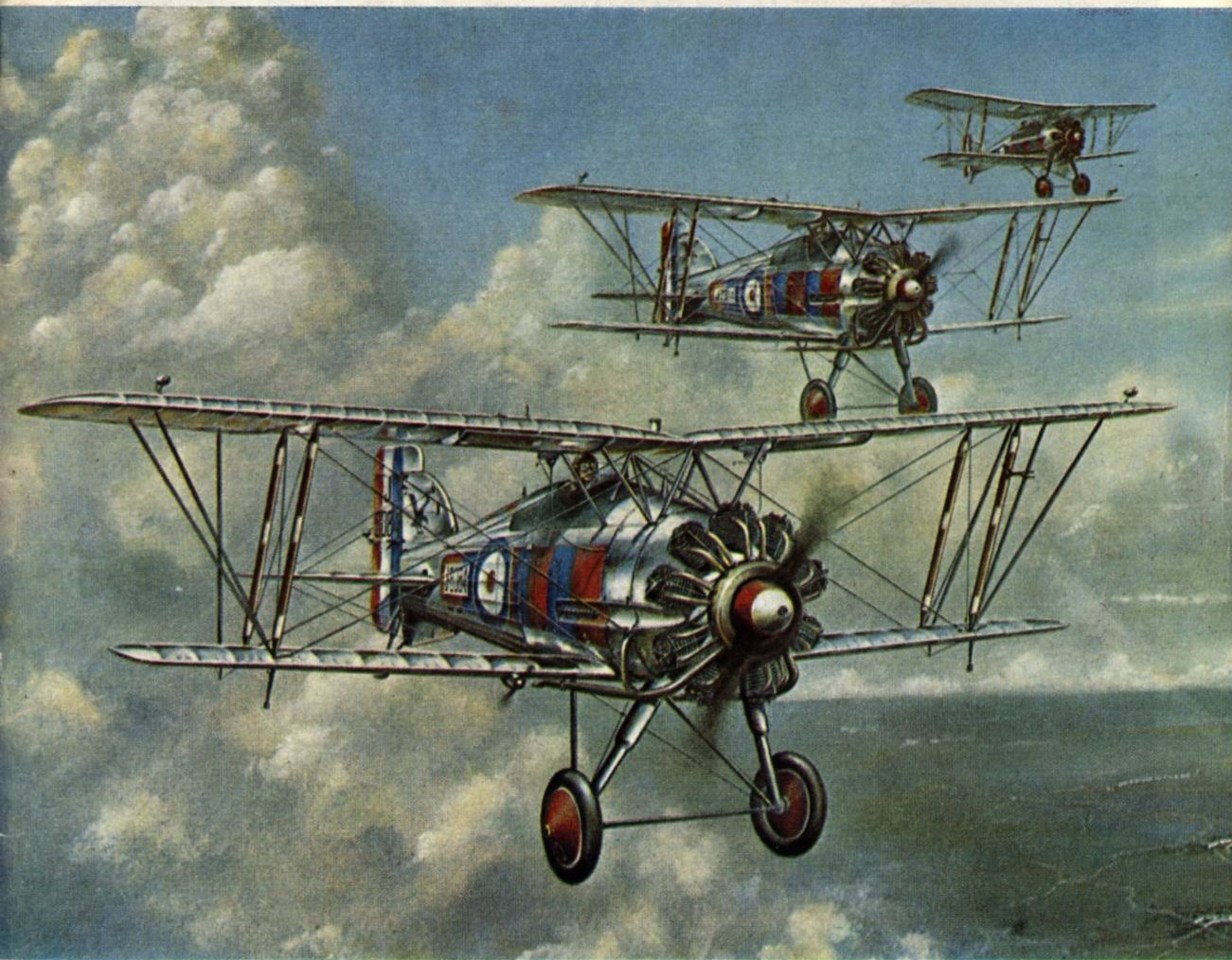


AIRFIX magazine

JANUARY 1972

FOR PLASTIC MODELLERS

15p
MONTHLY



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THIS
ISSUE**

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Modelling two Coles Crane variants

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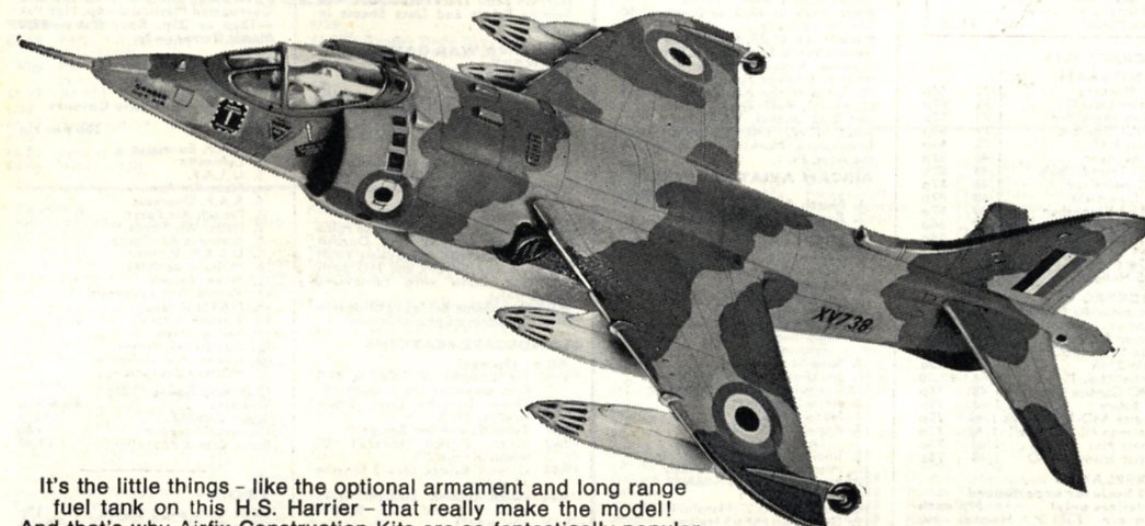


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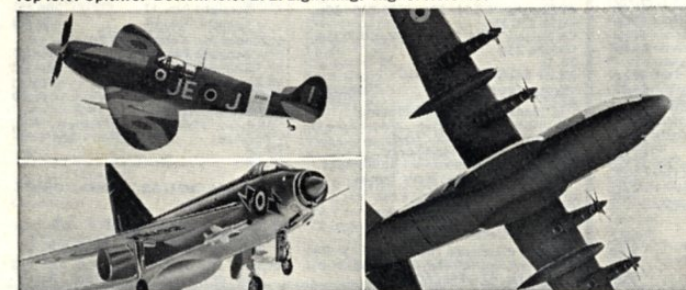
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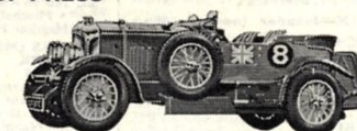
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AIRFIX

magazine

FOR PLASTIC MODELLERS

Volume 13 No 5

Cover Picture

The Gloster Gamecock, developed from the earlier Grebe fighter, began to enter RAF service in 1926. Our cover picture shows aircraft of No 23 Squadron Henlow, which was the first unit to receive this fighter. Nos 3, 17, 32 and 43 Squadrons eventually received Gamecocks.

Although the accident rate was high considering the number of aircraft of this type in service, the Gamecock soon became well liked by its pilots – especially as an aerobatic mount.

The famous pilot Douglas Bader flew a No 23 Squadron aircraft in the 1931 Hendon Air Display. However, in 1931 the last machines were withdrawn from RAF squadron service, the Bristol Bulldog having largely replaced them. Power plant was a 425 hp Bristol Jupiter VI radial, and the maximum speed of this 29 feet 9½ inches span fighter was 145 mph at 10,000 feet.

(Painting by R. Williams, photograph by B. Baker)

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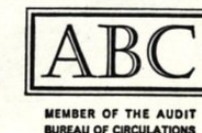
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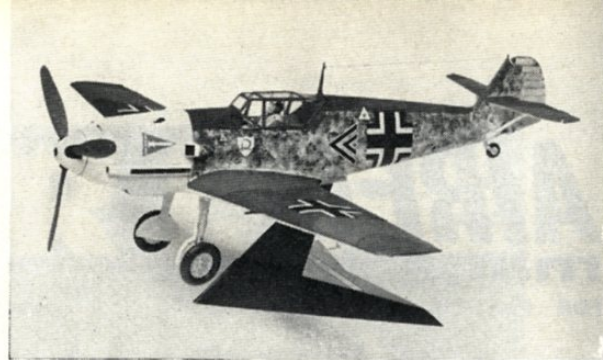
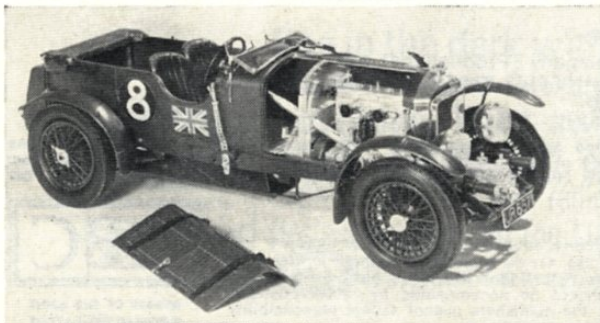
NEWS FROM AIRFIX

The world's greatest value in construction kits

- 1:12 scale 4½ litre Bentley
- 1:24 scale Me 109E
- 54 mm scale Soldiers
- 1:76 scale Crusader Tank
- 1:32 scale Prince Henry
- 1:32 scale Bond Bug
- Cessna 0-2/Mig 21 'Dog Fight Double'

A 4½ LITRE supercharged 1930 Bentley is the first in a new 'Connoisseurs' Series of 1:12 scale construction kits from Airfix. The four-cylinder engine is fully-detailed and modellers can, if they wish, motorise the car with an accessory pack which is available as an extra. There are over 50 parts in the engine alone and each component has been finely-moulded in aluminium-coloured polystyrene so that the completed unit looks every bit the engineering masterpiece that develops 240 brake horse power at 4,200 rpm. The transmission and suspension systems have been reproduced and accurately moulded in dark green polystyrene. After the engine is in place then follows the task of fitting the large spoked wheels which have removable, flexible tyres with the spare being positioned along the near side of the engine.

The 14 inch long model then begins to take shape with the assembly of the interior and exterior fittings. This particular kit required over 18 months' work from first drawing to the completed model. The intricate work involved is notable in the interior of the car, which is meticulously fitted out and Airfix have paid particular attention to the detail of the dashboard



Illustrations on this page show the 4½ litre Bentley and the 1:24 scale Me 109E.

facia, steering wheel, gear change and upholstery. The windscreen, headlamps with stone guards and front and rear lights are produced in pre-moulded transparent polystyrene, while the characteristic bonnet is complete with air louvres. When the model is complete the flexible bonnet straps can be unfastened and the bonnet lifted to reveal the engine. The steering system is fully operational and the car can be motorised using a three volt motor available separately so that driving manoeuvres can be simulated. The kit has been modelled on the 4½ litre supercharged Bentley owned by Mr Neil Corner who has restored it to Concours condition and it was with his co-operation and assistance that Airfix were able to recapture the authenticity of this legendary car developed by Sir Henry Birkin in conjunction with Clive and Amhurst Villiers. This particular vehicle, the fourth of the supercharged 4½ litres, achieved a speed of 135 miles per hour in the 1930 French Grand Prix and competed successfully in many of the classic races of the 1930s.

The kit includes a special 16 page instruction leaflet with full colour front and back cover, notes on fitting the motor and an authentic set of racing transfers. Price is £4.50.

LAST year Airfix introduced its first Series 12 construction kit in 1:24 scale—the Supermarine Spitfire Ia which is now a best-seller throughout Europe. To complement this famous British Battle of Britain fighter, Airfix has now produced a 1:24 scale super kit of the Messerschmitt Bf 109E.

The 150-part Messerschmitt super kit is fully-detailed, and completely authentic. The Airfix design group responsible for producing this model worked closely with the Ministry of Defence (Air) and the Luftwaffe to ensure that no detail was omitted from this kit of the famous German fighter which, when completed, has an overall length of 14½ inches and a wingspan of 16½ inches.

Ailerons, elevators and rudder are all adjustable and the three-blade propeller is free spinning. The moulding of the Daimler-Benz 1,100 hp 12-cylinder engine incorporates intricate detail and modellers, if they wish, can purchase a separate battery-operated motor accessory pack, as an extra, to power the propeller. Beneath the large transparent cockpit canopy a pilot in authentic flying kit can be positioned behind the bank of controls. The cockpit interior includes detail like the oxygen supply, seat adjustment mechanism, and throttle, all accurately reproduced. The fully retractable undercarriage includes removable tyres.

The kit can be made up in two versions—either as Yellow '10' from Jagdgeschwader JG26, 9 Staffel/111 Gruppe based in the Pas de Calais area in France, or the plane flown by Gruppen Kommandeur Major Helmut Wick of JG2/1 Gruppe based at Beaumont-le-Roger September-October 1940. Major Wick was one of the top Luftwaffe 'aces' and was credited with shooting down 56 enemy aircraft during the Battle of Britain.

The kit includes a special 12 page instruction leaflet with four colour front and back covers, notes on fitting the Airfix Prop-motor, authentic transfers, painting instructions and a display stand identifying the fighter. The price is £1.95.

FOLLOWING the popularity of the Airfix range of 1:32 scale soldiers and military vehicles, the company have decided to introduce the new Collectors Series 54 mm construction kits. Two

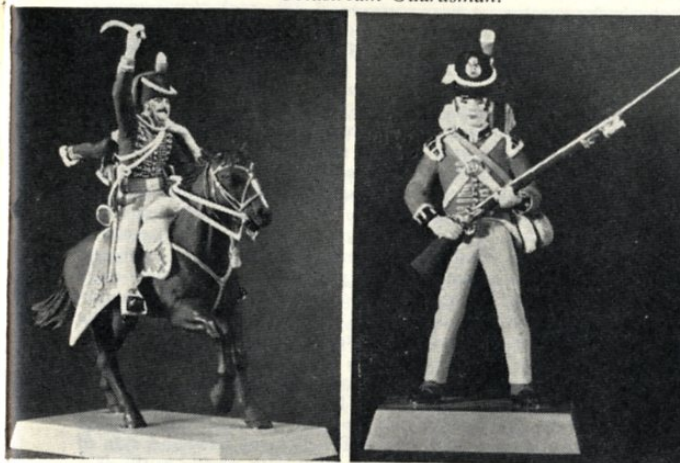
AIRFIX magazine

soldiers from the 1815 period have been chosen to commence the Series.

The first foot figure in this series is a guardsman of the 2nd Coldstream Guards as he appeared at the Battle of Waterloo. The 2½ inch high figure is depicted in an 'at ease' position carrying musket and back pack, blanket, water bottle, ammunition pouch and bayonet. The detail of the smooth bore 'Brown Bess' musket is exceptional and even the safety catch and trigger mechanism have been accurately reproduced. Modellers can follow the coloured illustrations on the header card when painting the actual figure and a display stand is included in the kit. There are 26 parts in the kit which costs 17p.

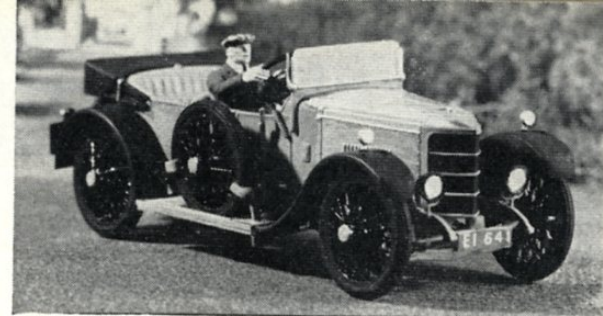
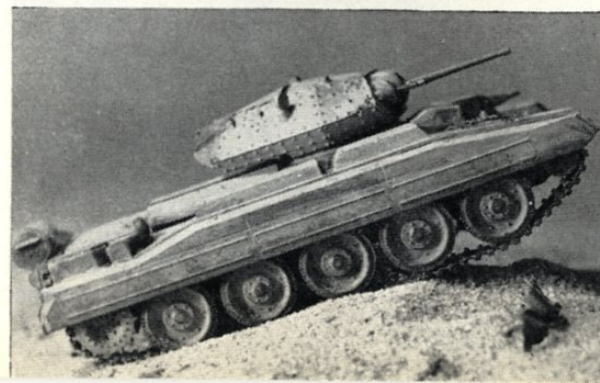
A 34 part Airfix construction kit of the British Hussar is the first mounted figure in the Collectors 54 mm series. The 10th Hussar in the colourful uniform and equipment of the Waterloo period is featured complete with sword and carbine. The completed model of a trooper on horseback stands 3½ inches high. The horse is depicted in a galloping position and looks most realistic. Price of this kit is 24p.

The illustrations below show two of the new series of 54 mm figures. Shown below left is the 10th Hussar and below right the Coldstream Guardsman.



THE Airfix kit of the Crusader can be modelled in either the Mk II or Mk III versions. The 79 part kit measures over 3½ inches when completed and alternative gun turrets are included. Both turrets rotate a full circle and the guns can be elevated to various firing positions. The Crusader II main armament was a two-pounder quick-firing gun and one or two Besa 7.92 mm calibre machine guns. Crusader III had a six-pounder gun as main armament and one or two Besa machine guns. Over 5,300 Crusaders were produced by the Nuffield Group and the tank had a top speed of 27 mph and a range of 100 miles. The kit is produced in khaki polystyrene and the following sets of transfers and painting instructions are provided: Crusader II, 10th Hussars, 1st Armoured Division, 8th Army; Crusader III, 17/21st Lancers, 6th Armoured Division, 1st Army. Price of the kit is 24p.

Below: The new kit of the Crusader tank modelled and photographed by Gerald Scarborough.



THE famous 'Prince Henry' car acquired its name from the 1910 Prince Henry trials in Germany where it proved to be so reliable that Vauxhall in England decided to put it into quantity production. The 1:32 scale Airfix construction kit has 99 parts which include an accurately reproduced chassis, transmission and suspension systems and all the internal and external embellishments which were fitted to this good-looking car. The completed model, which is 5½ inches long, captures all the realism of the original vehicle which has a place of honour at Vauxhall Motors in Luton. The distinctive V-shaped bonnet and radiator, beautifully styled wings and stepboard and the retractable canopy have all been faithfully styled. A figure of a driver, in period clothes, is included. Price of the kit is 34p.

THE new construction kit of the Bond Bug is a mere 3½ inches long when completed and is the first three-wheeler produced by Airfix. Included in the 1:32 scale kit is a fully-detailed suspension and transmission system and the fibreglass body has been faithfully reproduced in white polystyrene, enabling it to be painted in any desired colour. The interior of this two-seater includes detailed dashboard, steering wheel and a figure of a driver which can be carefully cemented into position. Exterior

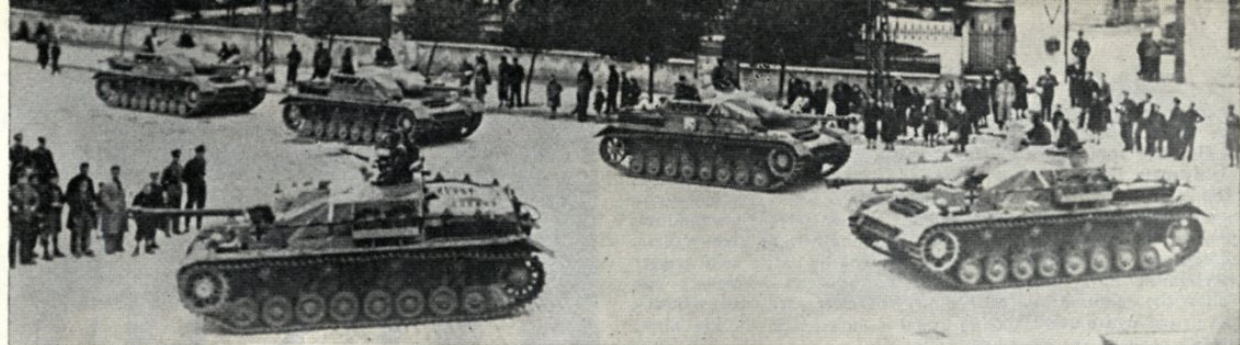


fittings such as the headlights, registration plates, brake and indicator lights and windscreen wiper arms, have all been accurately finished. The road wheels of this distinctive three-wheeler model rotate and a set of transfers and painting instructions are included in the pack. Price is 17p.

THE Airfix series of Dog Fight Doubles has proved extremely popular and the latest subjects to be added are the Cessna and the Mig 21—both 1:72 scale kits being packed in the same box. These two particular aircraft have, of course, encountered each other in the Vietnam conflict. Each aircraft is complete with transfers. Price is 33p.

Right: The Airfix 1:32 scale Strongpoint snap together kit costs 50p and is useful for dioramas and wargaming. Reader H. P. H. Davies has used the kit for just this purpose, using suitably posed figures from the Afrika Korps set plus a few improvements to the basic model.





A platoon of Sturmgeschuetz IVs pass the Dikiritiu Palace in Salonika 1944. Note the shields for the machine guns on their barbettes.

MODELLING THE STURMGESCHUETZ IV by T. J. Gander

New ideas on a previous conversion using the new Airfix kit

IN the June 1969 issue of *Airfix Magazine* a conversion article appeared describing how, by using parts from the Airfix Sturmgeschuetz III and the Midori Flakpanzer kits, one could model the Sturmgeschuetz IV. The end result as admitted in the article, was not entirely satisfactory but the best possible at the time. The arrival of the Airfix Panzer IV kit now means that modellers can now make a more accurate model of one of the large range of improved German assault guns—the Sturmgeschuetz IV L/48.

This vehicle was a real-life conversion employing the Panzer IV hull, chassis and suspension, and the StuG III fighting compartment and gun. It was brought into being after production capacity at the Panzer IV production plant, situated at Krupp-Gruson in Magdeburg, became free when Panzer IV assembly moved to St Valentin, Austria, in early mid-1943.

The StuG III compartment was simply placed on to the Panzer IV hull and the driving compartment area revised. The StuG III 7.5 cm StuK 40 gun was retained and the vehicle could carry 63 rounds of ammunition. A crew of four was carried, behind 80 mm of frontal armour and total weight was some 23 tons. In service, the StuG IV was used alongside the StuG III in Sturmgeschuetz units and was also used to make up numbers in Panzer formations. A total of 632 vehicles were built.

Modelling the StuG IV is interesting in that it closely follows the building of the real thing. Items required are a Panzer IV kit, a StuG III kit and bits of odd plastic card. A useful reference book is *Sturmartillerie*, published by Aero, which contains some excellent photographs of the StuG IV.

Start the conversion by taking the Panzer IV part 78; cut this across from side to side 17 mm from the rear end, ie, where the hull sides end (use a razor saw). Carefully file down the turret ring guards remaining on the rear portion with the engine covers and put it to one side—the front part is not required. Next, take the Panzer IV part 79. Again using a razor saw, cut both track covers across at the points shown in the diagram. Retain the two rear portions and cut the track covers at the front 14 mm behind where the fine mesh starts to be impressed into the plastic—again refer to the sketch. The centre portions are not required on the model but should be retained for the purpose described below.

Now turn to the StuG III kit and take the hull top (part 57), carefully remove the rear engine compartment from the fighting compartment by cutting downwards with a razor saw in line with the rear wall. Rub down any rough edges afterwards. Take the centre portions, retained as mentioned above and use them to measure off the length of the fighting compartment required. This is done by simply laying the Panzer IV parts alongside the StuG III fighting compartment from the rear and marking off on each side where the forward cut is to be made. In this manner an accurate fit of the StuG III part can be made to the Panzer IV chassis.

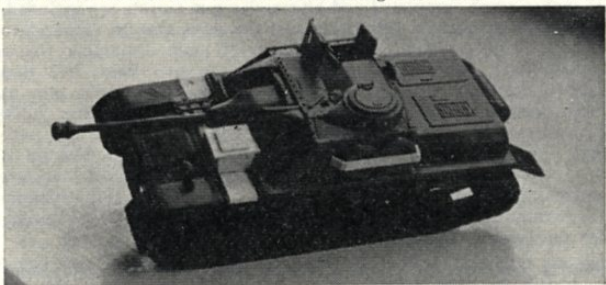
Cement the StuG III muzzle assembly (55) and mount (56) to the inside of the fighting compartment. Only small parts of the

StuG III kit remain to be used, but the rest of the parts can be utilised in further conversions such as the Panzer III, or Su 76i.

The main assembly can now commence. Start by cementing the hull bottom (81), sides (9 and 38), and rear (82) (note that the suspension is left till later to prevent it being damaged). Cement the engine louvres (76 and 77), the rear half of part 78, and the rear portions of part 79 all together so that fine alignment can be made. Cement them on to the hull sides. Follow this with the StuG III compartment and add the forward part of part 79 in its normal position. This leaves a gap in front of the compartment which can be filled with a 4 mm x 25 mm strip of plastic card. Carefully check that the track guard and compartment sides are all in line, and when in position leave the whole assembly overnight to allow the cement to harden. Some filing of the compartment sides may be needed to get them to align with the Panzer IV width.

All that remains is the driver's compartment box, which can be made from scrap plastic card. The front plate is 5 mm deep by 7 mm wide, the sides 5 mm deep by 10 mm long, and the roof 7 mm by 10 mm. This box is fitted to the left-hand side of the gun and faired into the sloping front with plastic putty or a

Below: Chris Ellis's original model of the StuG IV using the Midori Flakpanzer chassis. Now with the new Airfix Pz IV kit this same conversion can be done using the Panzer IV chassis.



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Above: StuG IV in Italy showing: Hull extension for the driver, saukopf mantlet, rails for skirt armour and extra tracks on the hull front to give added protection. **Right:** Sketch of driver's box and mantlet.

Far right: (1) Right-hand side of part 79. Dotted line shows cut. Left-hand side, cut in same place. (2) Right-hand side of part 79 front. Left-hand side, cut in same place. (3) Anti-bazooka plate (full-size). Left-hand side to front.

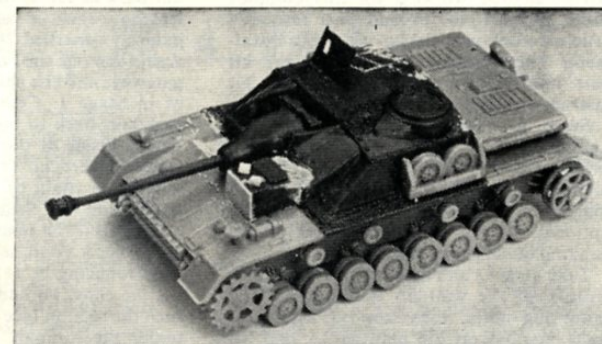
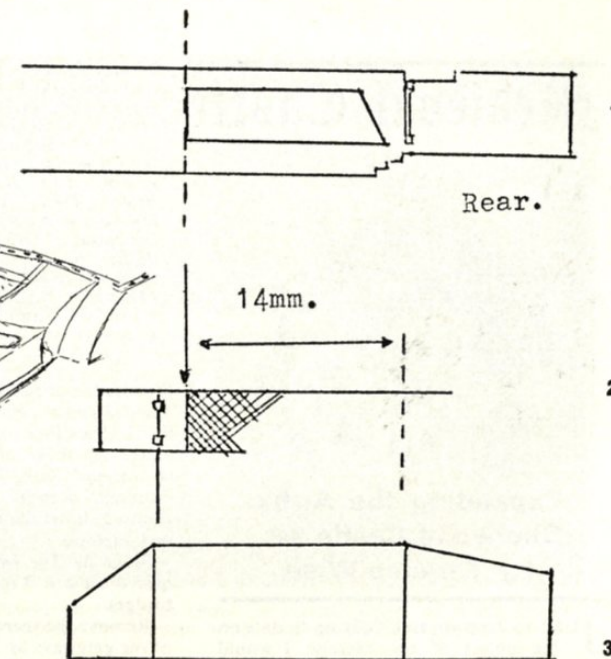
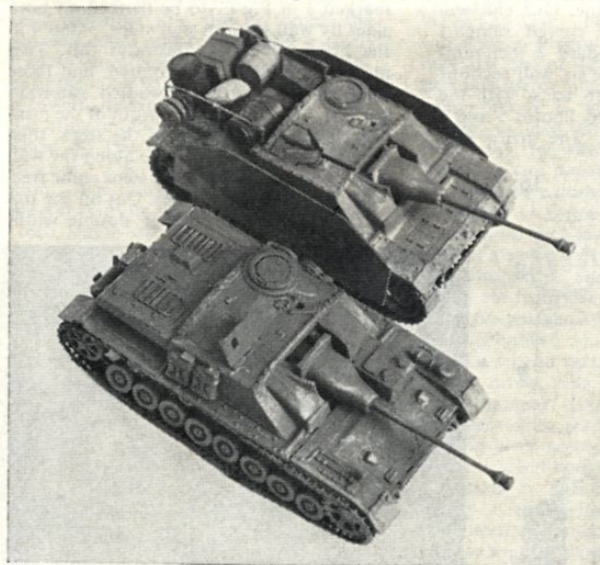
similar medium. The drawing shows the general idea. Final detail can be added to this box with a 6 x 3 mm hatch for the driver 3 mm from the front plate, and two slivers of plastic to represent the angled periscopes (see sketch).

The rest of the parts can now be assembled as per instructions. However, the spare wheels from the Panzer IV (94-97), along with their rack (80), should be fitted direct to the left-hand side of the compartment. Leave a 1 mm gap between the track guards and the rack. Fit the StuG III hatch covers, Saukopf mantlet and gun, using plastic putty to fill any unsightly gaps between the covers. Note that the machine gun shield (73) may be fixed in the folded position if required, but the locating slot will have to be filled with plastic putty and the locating tongue removed.

Detailing of the model is up to you. The model in the photographs has been left almost bare of extras (except for two jerrycans on the right-hand side of the compartment) to show the basic outlines, but the real thing had no end of items to be added. For a start an Armtec MG 34 could be fitted to the roof shield (73). The photographs in the reference quoted show vehicles festooned with all sorts of bits—from main drive sprockets and spare track links across the front hull covers to branches for camouflage. The driver's 'box' also carried extra track links for protection. The choice of extras is up to you.

My model was finished Humbrol Panzer Grey with the usual

Above right: A fine view of the conversion utilising the Airfix Panzer IV kit and StuG III hull top. Plastic card and plastic putty additions are shown in white. **Right:** Completed model from rear. **Below:** The StuG IV compared with a StuG III fitted with extra equipment including side skirts, aerial rails and stores.



dry stipple-brushed gunmetal when finished. The suspension and track were brushed with watered-down mud from the garden. In passing, I should mention that the tracks were secured with White Bostick (as suggested in a reader's letter some months back) after shortening by some four links.

Markings are a problem for this model. None of the photographs in the references show any except for one shot which shows the usual black cross and 331 (or 433) above it, painted on to the vehicle's 'Schuerzen'. A full-size drawing for these anti-bazooka plates is shown separately. Another photograph in the Bellona Handbook No 1 on SP mounts shows the black cross painted on to the side of the driver's compartment.

Medieval Castle



Expanding the Airfix Sherwood Castle set, by Terence Wise

JUST to keep yourself fully up to date on the object of the exercise I would advise anyone working on this complex castle project to re-read last month's article before proceeding with this instalment. The numbers quoted here are kit part numbers as referred to in the kit instruction sheet.

Stage 2—Flanking Towers: Parts required are 7 x 3 (wall section); 7 x 2 (tower side); 7 x 1 (tower side); 7 x 4 (tower front); 7 x 17 (tower floor); 7 x 18 (flagpole); 7 x 19 (flag). These last two are optional. In my own castle none of the flanking towers have flags.

Take a part 3 and draw a line from top to bottom of the wall on each side of the tower lug holes, then saw off these two ends, marked on the plan as 3A and 3B. Photo 1 shows a part 3 marked ready for cutting, and another already cut. The holes for the lugs remain but are now open-ended. Take care when cutting that the rampart is cut squarely, for this butts into the slots on the tower sides and fills a now unwanted gap.

Cement parts, 1, 2, 3 and 4 together, then cement in the floor (17) to help keep the tower square. Lugs which protrude can

Right: Part 3 of the Castle kit before and after cutting as shown in the master modification diagram, Fig B, below. Despite its complex appearance this castle model is easy if taken in simple stages. Foot of page: Completed towers

then be trimmed off and the slots in parts 1 and 2 can be filled with Plastic Padding which dries to a reasonable colour match. When set, shave off the surplus and score in 'mortar' lines. Fit flagpole and flag if required. Repeat this six more times. Photo 2 shows the tower completed by this new method.

Stage 3—The Inner Gateway: Parts required are 2 x 7 (gateway); 1 x 20 (drawbridge).

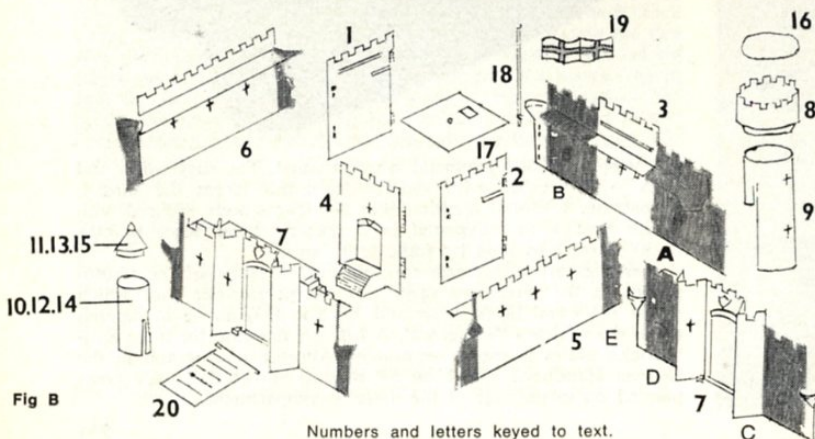
Remove the turret fittings from each end of the gateways as in Stage 1, but this time cut back as far as the ends of the rampart, leaving 1/4 inch of wall on each side of the gateway—marked 7C and 7D on the plan. Again remove the bar at the bottom of one gateway, and the shield outline is modified as in Stage 1. Cement the two gateways together, back to back, using 1/4 inch balsa blocks inside at the bottom to ensure the walls are vertical. The drawbridge is rigged with scale chain or thread and hinged at the bottom with Sellotape.

Stage 4—The Inner Wall: Parts required are 6 x 5 (wall section). These sections need reducing to 4 1/2 inch pieces by removing the ends. To find your first cutting line turn the section face down and you will see under the rampart at each end a mould line. At one end the line is continued down the wall. This is the first cutting line. Measure 4 x 1/2 inches to the opposite end for the second cutting line. One end will also have to have the curved rampart trimmed back to the standard 1/2 inch rampart width. Cement these six wall sections together in pairs, back to back, with the usual 1/4 inch balsa spacers. Photos 3 and 4 show the finished walls. The arrow slits

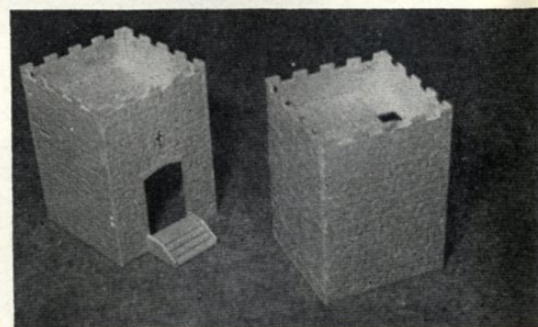
can be retained, or filled with Plastic Padding.

Stage 5—The Towers of the Inner Wall: Parts required are 3 of the square flanking towers built in Stage 2, 2 x 7 (gateway). Put one tower to one side, then remove the steps from the other two. Trim the backs of the steps to get them vertical and cement them to the ends of the ramparts of two sections of the inner wall, highest step facing outwards. Fig C shows the final wall layout. Sections numbered 5 have these steps. Returning to the towers, we now cut a panel from the battlement section part 4, the doorway section. Saw down to tower floor level at a point 1/4 inches in from each side, leaving two merlons on each side of the opening (that is the solid part of the battlement). Score across the panel bottom at floor level with a knife, then fold back the panel until it breaks off cleanly. File off the rough edges, making sure the bottom edge is flush with the floor. If you place these towers against the wall sections with the steps, you will see the steps are slightly too low. Build up with a step of plastic card, 1/4 inch x 1/4 inch. Photo 3 shows a tower adapted this way with the corresponding inner wall section in place.

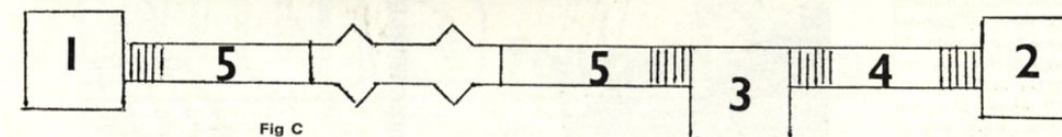
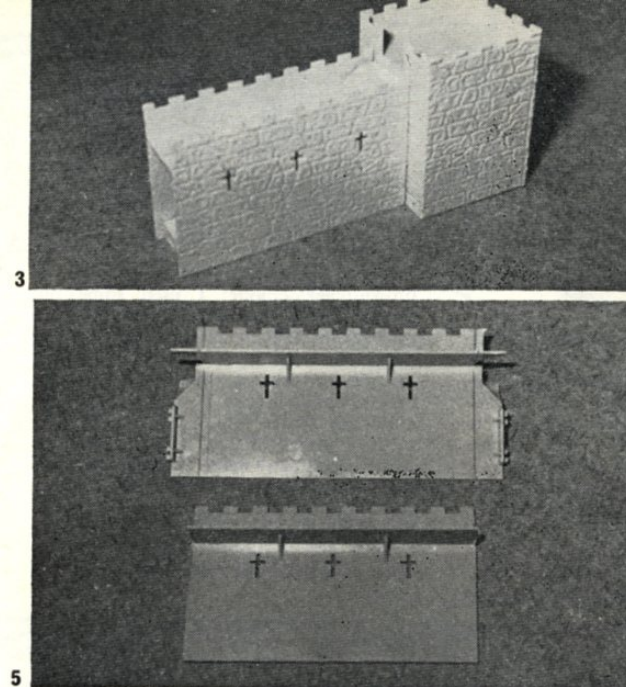
The third tower has similar panels removed from both sides—parts 1 and 2. This then becomes the inner wall tower marked 3 in Fig C, to be flanked on both sides by wall sections and steps, 5 and 4 in the figure. Photo 4 illustrates this. Two more sets of steps are required, and these must be taken from unwanted gateways (part 7). Saw through the width of the rampart at top and bottom of the steps, then drag the point of your knife along the wall edge several times until the steps come free. Take off both sets of steps, making double width 2



Numbers and letters keyed to text. Remove shaded parts.



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steps here and leaving 5 complete steps. Stick the two sets of steps together to make up the correct width, then cement them on to one end of the third wall section, marked 4 in Fig C. Repeat the procedure with another part 7, the resulting steps being cemented to the opposite end of the inner wall section marked 4.

The inner wall complex should now be set up and the ends of the walls filed as square as possible to obtain good joins. This part of the defences was designed so that if the main gate and curtain wall fell, the inner wall presented a fresh barrier. Should the inner gate also be forced, the inner wall could still be held and used to fire down on attackers in the narrow confines of the inner bailey. Only the loss of the two towers, marked 1 and 3 on the figure, could bring about its complete downfall.

Stage 6—The Curtain Wall: Parts required are 7 x 6 (wall section); 1 x 5 (wall section). The part 5 is modified as in Stage 4 by cutting off both ends to leave a 4 1/2 inch length of wall. The parts 6 also have both ends removed, leaving 4 1/2 inch lengths of wall. Photo 5 shows a part 6 cut and uncut. There are no handy guiding

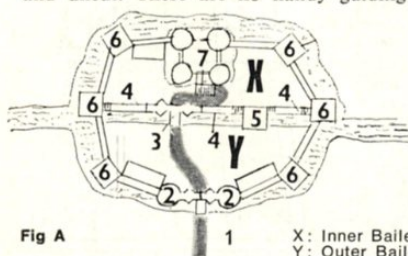
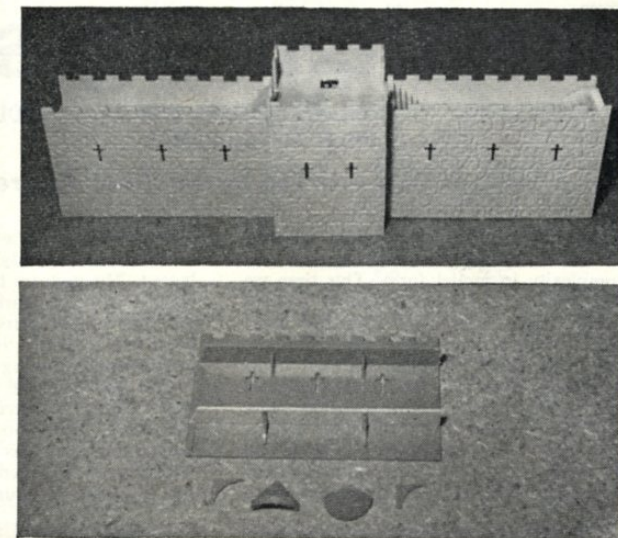


Fig A

X: Inner Bailey Y: Outer Bailey

January 1972



Pictures on this page show the various stages of modifying and assembling the curtain walls and towers as described in text.

lines this time but if you look at the wall section from the rear, on the left hand side you will notice two mould rings. Draw a straight line along the outer edge of these, then another line 1/4 inch beyond it. This is the cutting line and also gives you a straight edge from which to work. It also links with a mould line on the underside of the rampart, and with the cut-out in the battlement. All this helps to cut a good straight edge. Measure 4 1/2 inch to the other end for your second cutting line. Again you will find this links with a mould mark under the rampart and the cut-out in the battlement. When you have cut off these end pieces you will have 8 lengths of wall, seven of 4 1/2 inch and one of 4 1/2 inch each with a rampart and arrow slits, but having no depth, being merely a facade of stone-marked plastic 1/4 inch thick—hardly a wall to stand up to sustained bombardment! There are two possible answers, so read to the end before doing any more alterations.

Method 1: Cut a strip of card 1/4 inch wide by 4 1/2 inch long and cement it to the back of a part 6 wall section, 1/4 inch up from the bottom edge. Support it with triangular pieces cut from the rampart ends of parts 5 and 6—you should have a lot of these by now. (Photo 6 shows them). This then forms a second rampart for men stationed at the arrow slits. The part below the second rampart can be filled in with plastic card scored to resemble stonework. This method gives access to the arrow slits for wargames, but does not look very good.

Method 2: This is complete enclosure, giving a proportionately thick, double faced wall, as for the inner wall sections, and far more realistic in scale and appearance.

Both methods can have small buttresses added to front or rear of the walls for extra stability. These can be made from the small turret tower fittings removed from the ends of parts 5, 6, and 7. They appear in Photo 6. This second method calls for quite a bit of patching—unless you want to buy another seven kits just to get more parts 6!—and is too lengthy to describe this month. However, there is plenty to get on with in the stages described here, so I will return to this particular problem in the next instalment.



For those making the Panzerbüschle 41 gun detailed last month, this picture, which also shows the ammunition boxes, should be useful. Our Fallschirmjäger series is held over this month, but continues next issue.

Trestle Bridges: 2

SIMPLE ENGINEERING STRUCTURES FOR RAIL LAYOUTS OR MILITARY DIORAMAS

Last of two articles by Michael Andress

LAST month we looked at a variety of trestle bridges of differing sizes and complexity in model form. This time we will consider the construction of a small trestle bridge in N scale. The four bents are built up over the plans using the type of construction familiar to all aeromodellers; these are then assembled and held together by longitudinal stringers and diagonal braces to form the bridge. Although for a large bridge the bents will be larger and much more numerous the method of construction is the same so you

can use the technique described here whatever the size of bridge you need for your layout. The pictures last month also illustrated how the basic structure can be modified by the introduction of a span to cross over a river, a road, or over another railway track running at a lower level.

The best material to use for wooden trestle bridge construction is, obviously, stripwood. Hardwood strips are best if your model shop has them but hard balsa will be quite strong enough if hard wood is not available in your area. The wood is

best pre-painted with a thin wash of brown/black colour; I used some old thinner which I had been keeping to clean my brushes. It is much easier to paint the strip before cutting it up and assembling the pieces; you can touch up any unpainted cut ends later. If you would like to build this bridge follow the step by step pictures presented here and the captions which accompany them. My model is for N scale. If you want a bridge for OO9 you could use this bridge as it is but this would be a little small and it would be better to build it with all dimensions increased by a third or a half. For OO scale, double all dimensions.

Photo 1: The two larger bents are made up as follows. The full size pattern (Fig 2), or a tracing of it if you don't want to damage your magazine, is Sellotaped on to a wooden board. Covering it with a piece of grease-proof paper will make it easier to remove the assembled bents but I didn't bother and had no difficulty in separating the bents and the paper using a sharp knife blade. One sixteenth inch square prestained wood strip is used for all parts of the bent. Start with the five upright pieces, cutting each to length and holding with pins at each side.

Photo 2: Here the five uprights, the top and bottom horizontals and one middle cross piece have been cemented and held in place, until fixed, by pins. The two diagonal braces on this side are next fitted (they are the ones running from upper left to lower right). The bent, when the glue has set, is removed and turned over; the other middle cross piece and two diagonals are added.

Photo 3: For the bridge 4 bents are needed, 2 large and 2 small as shown here. Construction of the smaller bents is similar to that for the larger and a full size pattern is also provided in Fig 1.

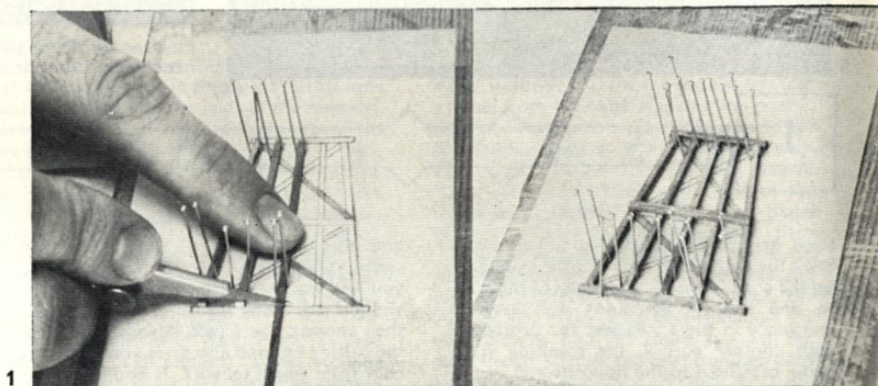
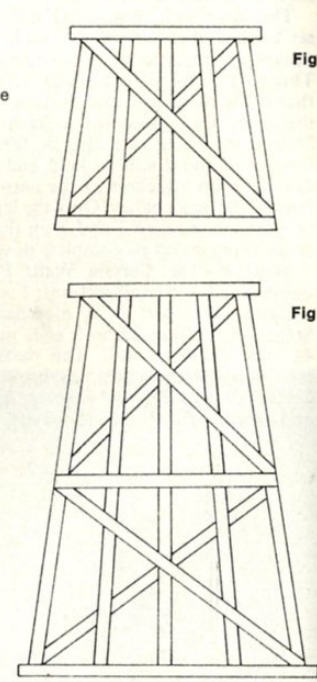
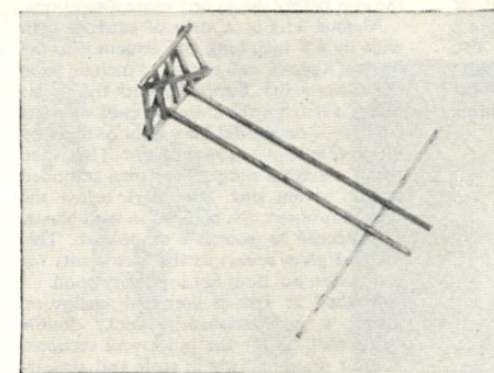


Photo 4: The assembly of the four bents requires a little care as it is essential that they are correctly spaced and that the whole structure is square and true. However it is not difficult if you follow the method I used. Cut two longitudinal stringers of 1/16 inch square stripwood 88 mm long. Hold one of the small bents upright and cement one end of each of the two stringers to it as shown. The strip (of the same material) placed crosswise beneath the other ends of the stringers holds them at the right height. Adjust to the correct position and then leave for the cement to dry.



Drawings full-size for N gauge model. Pictures keyed to references in text.

AIRFIX magazine

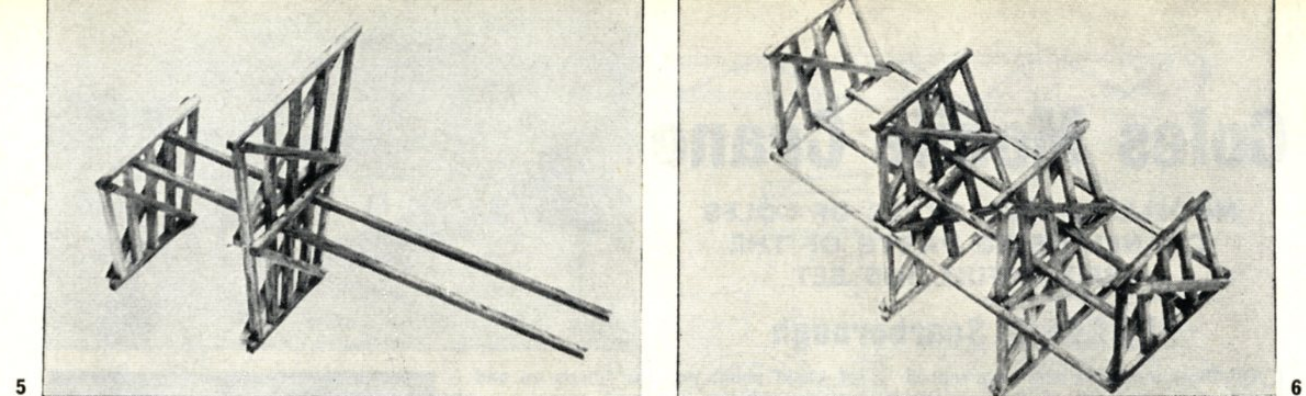


Photo 5: Now turn the structure so far assembled upside down and fix one of the larger bents to the two stringers. When the glue is dry this is followed by the other large bent and finally the remaining small one. The bents should be equally spaced and as each part is added take care to keep it square until the cement has set firm.

Photo 6: Turn right way up again and add two more stringers, one along each side as shown.

Photo 7: Diagonal braces of 1/16 inch by 1/16 inch balsa strip are now added to each side. Fit those running from lower left to upper right first then the others over these. Two 1/16 inch square strips 14.5 cm long are

cemented to the top of the bents with their centres 9 mm apart and with the overhang at each end equal. To complete the bridge add two more strips of 1/16 inch square strips each 25 mm long across beneath the two track supporting beams, one at each. (These have not yet been added on my model). The bridge can then be fitted into place on the layout and the track laid across it.

BOOKS for modellers

Unless otherwise stated, books reviewed are normally available from your local bookshop or from hobby shops which sell books for enthusiasts, including the mail order stockists advertising in this magazine. As a last resort they can be obtained from the publishers whose addresses are given when known. In all cases of mail order, however, suitable postage should be added to the selling prices quoted.

MILITARY

The War Game.
Charles Grant.
A. & C. Black, 6 Soho Square,
London W1.
£3.00.

THIS new book on the ever-popular subject of wargaming should make a good Christmas present for anybody just embarking on this fascinating hobby. It contains a wealth of illustrations and diagrams, enough to satisfy any queries that might arise from the main text. However, to some extent it almost unavoidably duplicates subjects from Donald Featherstone's earlier wargame work. Apart from this it is a well laid out and nicely produced book practically guaranteed to do well at Christmas.

Armies of the Macedonian and Punic Wars.
Phil Barker.
War Games Research Group, 75 Ardingly Drive, Goring-by-Sea, Sussex.
£1.25.

ONE of a new series covering weapons, equipment, and tactics of the Ancients in greater detail than previously, it is arranged in chronological order and covers the major battles of the period, tactical methods, composition of armies and many other details. All the drawings in the book are diagrammatic rather than detailed, but all the same they could be rather better in a book of this price. Apart from this relatively minor grumble, it is an excellent book and the whole series is a great idea for wargames fans.

The Iron Brigade.
John Selby.
Chasseurs of the Guard.
Peter Young.
Waffen SS.
Martin Windrow.
The Coldstream Guards.
Charles Grant.
Men-at-Arms Series, Osprey Publishing Ltd, Reading, Berks.
£1.25 each.

NEWLY published by Osprey, these four books are in the 'Men-at-Arms' series, giving short histories of each unit with full colour plates showing their uniforms and accoutrements. Also included are several photographs and line drawings illustrating badges of rank, distinctive items of dress, and actions in which the units have since become famous, or notorious. There are eight pages of colour in all with short descriptive captions at the back of each book. Page size is similar to the Osprey Aircom books. Our review copies came from Jones Bros of Chiswick, who can supply by post at 5p extra per book.

Western Gunfight Wargames Rules (second edition).
Steve Curtis, Ian Colwill and Mike Blake of Bristol Wargames Group.
Available by post from 102 Cotham Brow, Redlands, Bristol 6.
50p.

IF you have a bent for the unusual, try this book for size, covering close-quarter fighting from 1700-1900, using all the paraphernalia of the old West, American Civil War, et al. It is enter-

taining and informative, giving rules for the use of, amongst other things, shotguns, Bowie knives and cannon.

The rules are based on the usual sort of points system and provide a certain amount of light relief from the more serious wargame business of manoeuvring conquering armies.

AVIATION

Spitfire: Classic Aircraft No 1
Their history and how to model them.
Roy Cross and Gerald Scarborough.
Patrick Stephens Ltd in association with Airfix Products Ltd.
£1.50.

DIVIDED into two parts, this book covers the history and development of the Spitfire. It is jointly written by Roy Cross, a well-known writer on aviation subjects, and Gerald Scarborough, a regular contributor to Airfix Magazine. The first section—written by Roy Cross—contains a wealth of detail not often found in a book of this type. Covering the Spitfire Marks I to V, it also includes scale plans and photographs, many of which have never before been published. This is an absolute boon to the aircraft modeller as he can now use these plans to super-detail Spitfire kits, even in scales other than 1:24.

The second section, written in the usual Scarborough fashion, is illustrated with plenty of clear detail photographs and diagrams, and shows how to convert the Airfix Spitfire kit into several different versions of the original aircraft. As an added attraction, there are also hints on how to convert some Airfix figures into aircrew for the model. Altogether a splendid book that bodes well for the rest of the series when they appear.

Aircraft Annual, 1972.
J. W. R. Taylor (Editor).
Ian Allan Ltd, Terminal House, Shepperton, Middx.
£1.00.

THIS very 'hardy annual' is as nicely presented as ever, with many pieces of interest to aviation enthusiasts. There are some excellent colour plates and plenty of good pictures. In short, it is fine value.

Coles Mobile Crane

MODELLING TWO TYPES OF COLES
CRANES USING PARTS OF THE
AIRFIX REFUELLING SET

by Gerald Scarborough

FOR those modellers who have robbed the Refuelling Set of Bedford QLs for conversions and are, therefore, stuck with a lot of AEC parts, a fairly simple alteration is to the Coles crane lorry. The AEC 0854 chassis was fitted with a Coles Mk VII series 7 crane which had a maximum lift of 5 tons at 7 feet 6 inches radius. I understand that this was used solely by the RAF and am therefore including drawings and details of the Short Wheelbase Thornycroft Amazon for Army enthusiasts. This is fitted with the same type Coles crane as the AEC, but some models had a Mk VII series 2 version.

AEC chassis: Make up the complete chassis as described in the kit instructions (parts 5 to 7), but leave off the wheels and rear mudguards at this stage. On my model I used wheels from a Tank Transporter trailer, these being nearer to the size and style fitted to these cranes, and anyway I've earmarked the AEC wheels for another project. Add strips cut from 60 thou plastic card to the top of the chassis side members, from behind the cab to the rear bring to the depth as shown on the drawings and fill the mud-guard locations with scrap or body putty. Now add the platform for the auxiliary engine/generator, cut again from 60 thou plastic card to the width of the cab. Now add the rear platform and its bearers, then cement the mudguards underneath this after removing their locating brackets.

The engine/generator housing is a simple 'box' constructed from 40 or 60 thou plastic card and this is mounted on channel section bearers which can be fabricated from Microstrip. Note on the photographs of the model under construction this 'engine' is only laid in place. You can now add a roof spotlight and driving mirrors, etc. A quick coat

of khaki paint, pop the wheels on and you're ready for the crane.

Coles Mk VII series 7 Crane: If you've done a bit of flying aircraft modelling, the principle of the jib construction is about the same. It's a lot smaller though, and grateful thanks to Slater's for producing Microstrip. First, make up the two sides from Microstrip and construct the 'angle iron' main 'longerons'. You'll have a join, however, as Microstrip is not quite long enough to do it in one run, but arrange it so that you get a nice stagger. Trace the drawing so that you have the opposite side to work from. Lay out the 'longerons' over the tracing, add the bearing plates and all the upright spacers. I found tacking in place with tube cement and completing the join with Mekpak the easiest way. When dry, turn over and add the diagonal pieces which come on the outside. Now do the other side and leave both to dry out thoroughly. Do mind not to make two the same. When dry, just add the cross pieces to the top and then the diagonal bits underneath. It's a bit delicate in construction but pretty strong when all is nicely cemented up and dry.

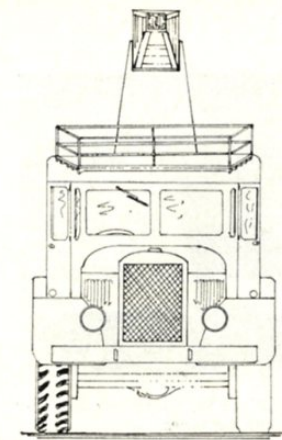
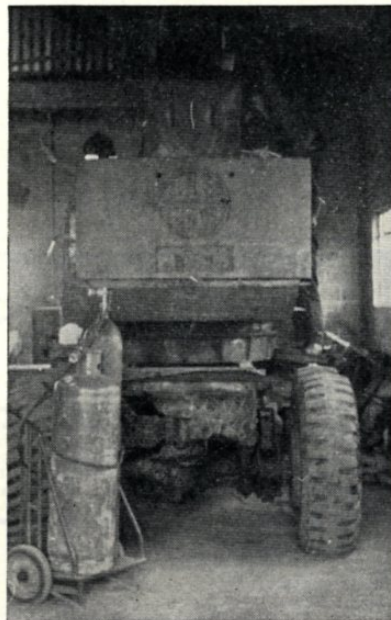
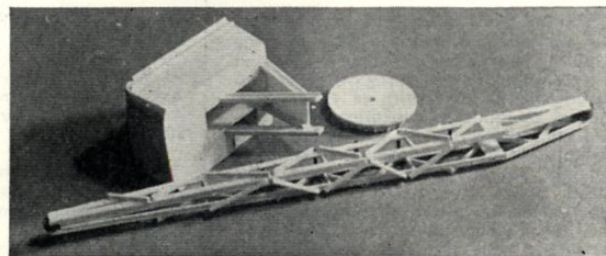
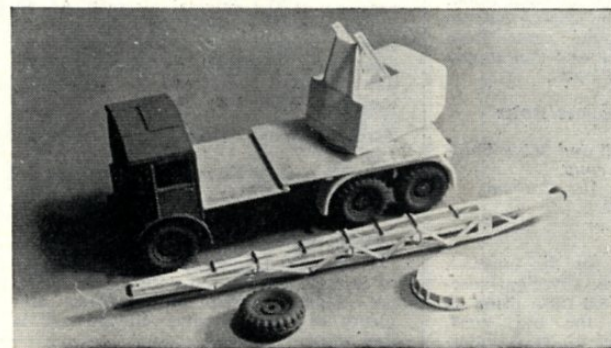
Now to the winch and motor housing, turntable and jib supports, etc. The drawings should show how this goes and we'll start at the bottom and work up. First, then, the turntable, which is fitted direct to the Thornycroft chassis. On the AEC the crane can pivot direct in the hole in the platform so if you are making the AEC you can miss this step. Cut out two discs from 40 thou plastic card and stick these back to back and on top add a slightly larger disc from 30 thou card. Dimensions you will get from the drawings, and it's a good idea to drill out the hole for the pivot pin as the card is cut out, to assist in location as it is built up. Now add the reinforcing webs from little

Above: Rear view of the Thornycroft Amazon showing turntable and suspension detail.

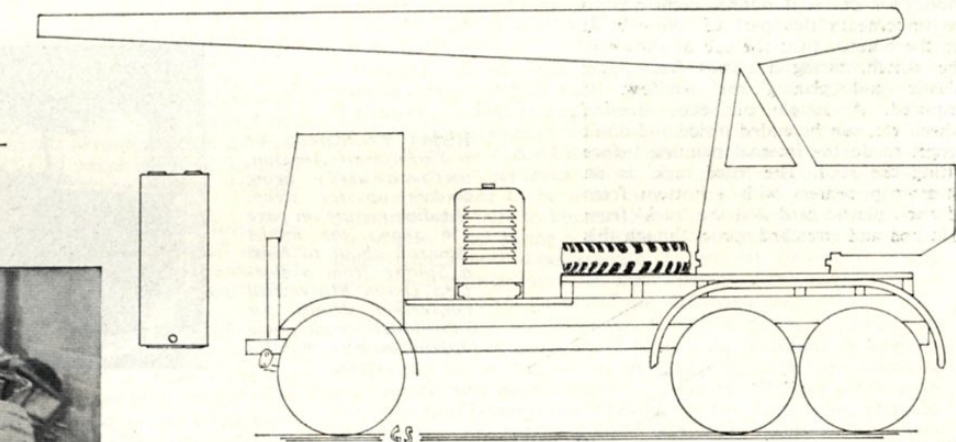
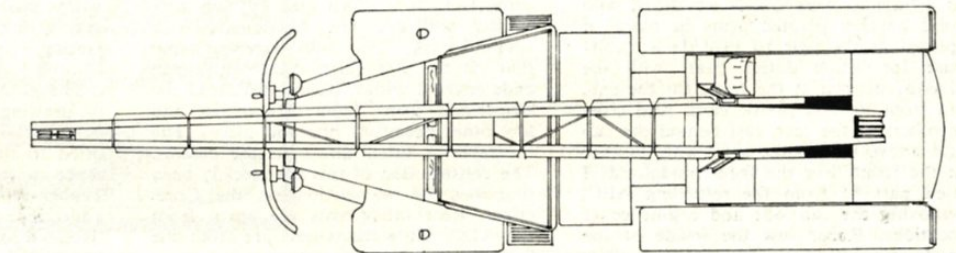
triangles cut from Microstrip; there are about 20 of these equally spaced around the circumference. Leave aside to dry as this assembly will go direct on to the Thornycroft as a turntable for the rest of the crane.

Now, for both versions, cut out two discs from 30 thou plastic card and one slightly smaller disc from 40 thou to sandwich between them. Drill pivot holes in each disc and use the drill to locate them while cementing. Cut the rectangu-

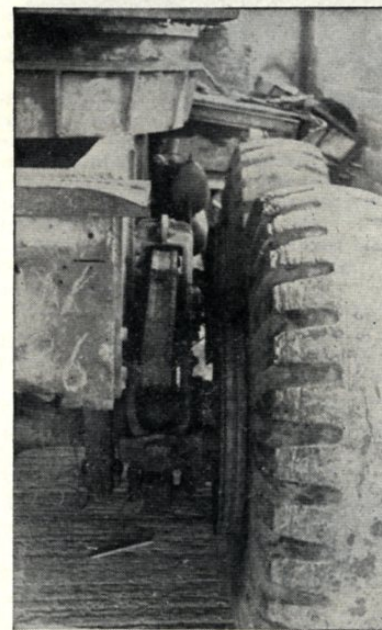
Left: Model under construction showing new plastic card body, jib and fiments. Below: Jib and ribbing detail made as described in text and shown here in close-up.



More drawings on next page.



1:76 scale

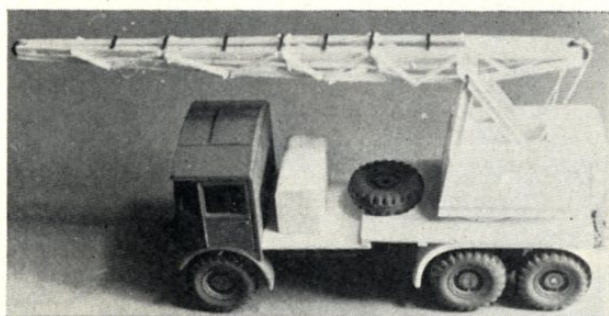
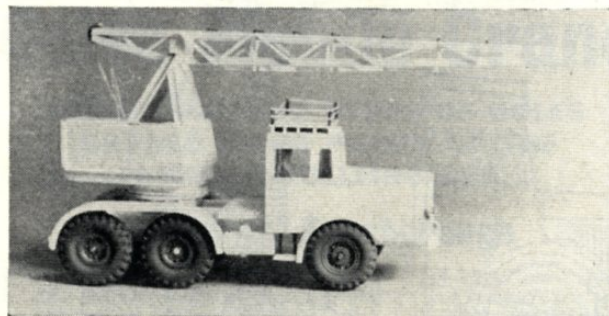


lar bottom floor, again drilling the pivot hole, then add the Microstrip side pieces to form the side channels. Next, add a piece across the front, and then on to this a 'top' floor which overhangs to the rear. Allow for the thickness of the front face when cutting out the four sides, scoring in the panel lines on the outer pair. Cement these in the positions as shown on the drawings, making sure they are vertical to the bottom. Cement the front face and tops to these when dry, leaving the driver's compartment open, of course. In this you can fit a spare seat from a Quad, half-track, or something

similar. The rear counterweight casting is from laminations of 60 thou plastic card sanded to shape when dry. The jib supports are quite simple, being channel section built up from Microstrip with the front from plastic sheet. Underneath the main assembly add the 30/40/30 thou disc 'sandwich' with a rod or sprue pivot pin cemented in place. The jib can be pivoted with rod through small holes drilled through the side plates and supports. As a final touch add the block and hook from scrap with the wire ropes from stretched sprue.

Thornycroft Amazon

I rather like this hefty-looking vehicle and it makes a fairly simple scratch
Continued on next page



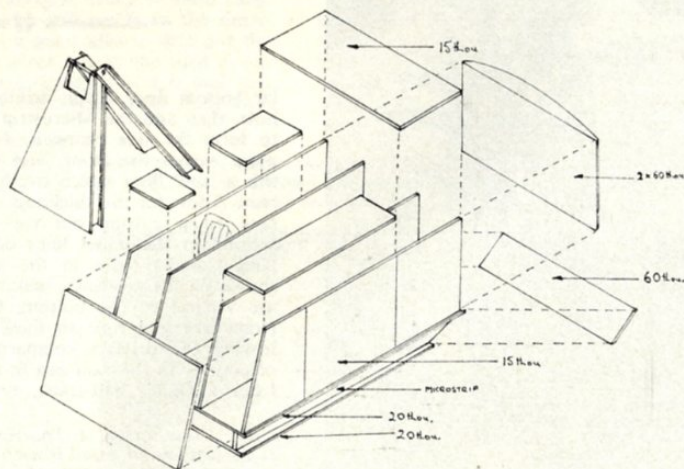
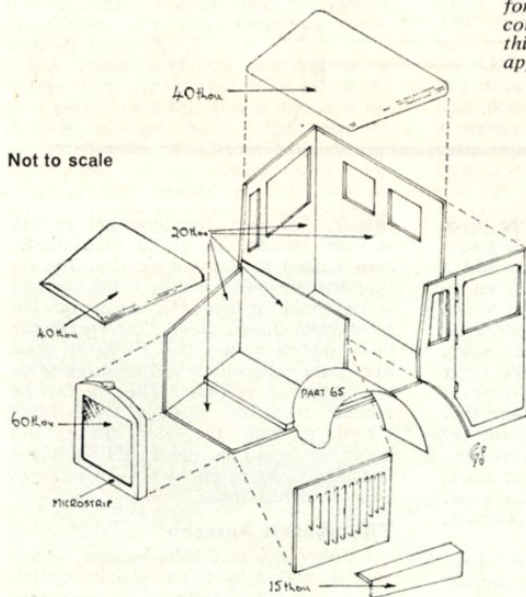
Above, left and right: Completed models of the Short Wheelbase Thornycroft Amazon and the AEC 0854. Both models are unpainted. All the essential differences in the two vehicles are clear from a study of the pictures.

building job, with a good solid chassis as a base to work on. It was fitted with solid parallel pivoted arms in place of springs at the rear to provide a steady base for lifting duties. Start with the chassis, stepped at the front for the cab, cut from 60 thou plastic card. Add cross members at the rear, just behind the cab and above the middle axle, with another at the front. For the front mudguards I used part 65 from the refuelling AEC, removing the cab side and engine cover locations. Razor saw the inside of the mudguards away at an angle to allow for the bonnet and cab front. Cut a 'floor' for cab and bonnet combined to go underneath this part 65. Now build up the bonnet, then the cab as shown in the sketch, fitting a screen from clear plastic and glazing the windows if required. A couple of seats, steering wheel, etc, can be added inside and don't forget to do the internal painting before fitting the roof. The 'roof rack' is on Microstrip bearers with a bottom from 15 thou plastic card and the 'rack' from thin rod and stretched sprue, though this

is better fitted at a later stage. Rear axles came from a Bedford QL, but anything similar will do. The front axle is a cocktail stick. Fuel tanks were cut from that on the Refuelling AEC with open ends covered with a plastic disc. Add the suspension arms from Microstrip and any other necessary bits and pieces. The turntable is fitted direct to the chassis. The construction of this has already been described in the section on the Coles crane. Rear mudguards are again from the AEC, while the wheels are from the Scammel in the tank transporter kit. I would like to record my thanks to

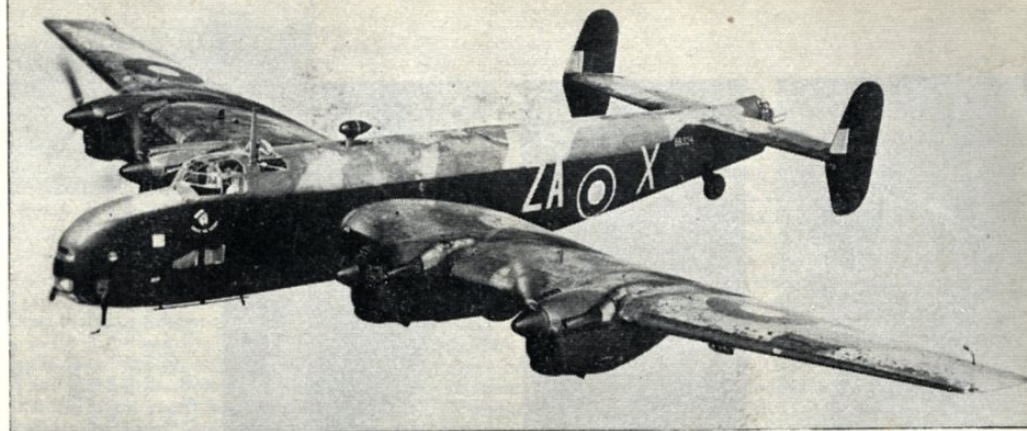
Richmonds Ltd, near Boston, for kindly letting me poke about and take photographs of the Thornycroft that they were cutting up for scrap and also to John Church for his basic drawings. John has drawings available on his extensive list of drawings of the Ford WOT 1/Coles Mk VII series 5 which crane was also fitted to the Austin K6 and this should make a nice conversion to the Fire Tender in the Emergency Set. Stamped addressed envelope to John Church at 'Honeywood', Middle Road, Tiptoe, Nr Lymington, Hants, will bring you his full list.

Right: Photograph of a Thornycroft Amazon, unfortunately being broken up for scrap. Heading picture on page 256 shows the model Amazon about to hoist a Spitfire from a Bedford Queen Mary. Full conversion details for this latter model will appear in next month's issue.



Not to scale

Halifax II Srs 1 (Special) with the Type Z nose. Note the exhaust stains and weathered upper surface paintwork. She carries a nose painting and bomb symbols denoting four sorties. BB324 of 10 Sqn joined that unit in April 1943, and was lost on June 22/23 and may have come down in the North Sea (Real Photographs).



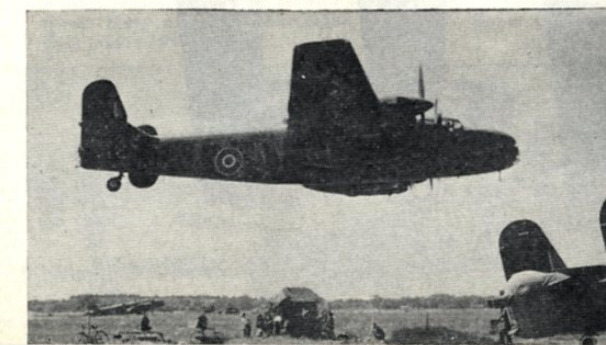
Part 32: The Bomber Offensive

BETWEEN March 5/6 and June 28/29, 1943, there were 26 major Bomber Command attacks on cities in the Ruhr, as well as attacks on other targets. The technique so superbly displayed upon Essen, when Oboe-equipped Mosquito IVs of 109 Squadron, backed up by Lancasters, marked the great Krupp works for a blistering onslaught, was repeated with varying success at the great inland port and industrial centre of Duisburg, which suffered five times, at Dusseldorf, where 693 aircraft were despatched on June 11/12, and at Wuppertal, on May 29/30 where the force included Stirling R9266:MG-J. In all these raids colossal damage was sustained by the enemy.

Losses were never light, for the enemy night-fighter force was presented with a large number of relatively slow aircraft closely placed and flying in streams. On the Wuppertal raid alone, 33 bombers were lost, 21 to fighters; the result of 76 engagements. Sixty more bombers were damaged by flak.

A high proportion of the aircraft lost fell in Holland to the Nachtgeschwader operating from Venlo and Gilze Rijen. Quite a number came down in the IJsselmeer. Recent drainage of the area has revealed the resting place of many a bomber to the expert investigators of the Royal Netherlands Air Force. Being in fresh water metal does not corrode in the IJsselmeer, but it requires meticulous research to identify the fragments retrieved. Two of 10 Squadron's Halifaxes came down there, for instance, DT732 on May 14, 1943 and W1217 a veteran aircraft. Between March and the end of June 1943, 628 bombers failed to return from the Ruhr raids and 34,750 tons of bombs had been dropped.

Of all the operations of the period none was to grip the imagination like the Halifax II Srs 1 (Special) JB911:KN-X with dorsal turret. She served with 77 Sqn for many months until passing to 1658 Con Unit in June 1944 (IWM).



tion more than that mounted on May 16/17, 1943, against the Ruhr dams. The Mohne Dam controlled the flow of water from the Mohne Lake and the level of the River Ruhr, and thereby water to many power stations. If it were to be breached a massive flood of 130,000,000 tons of water would be released. It was a tempting, but difficult, target. The Eder Dam controlled the Weser, and the others served similar purposes. For maximum effect the lakes needed to be drained in a dry season.

No 617 Squadron formed, to breach the dams with a bouncing bomb, on March 20, 1943 under Wing Commander Guy Penrose Gibson. Eventually twenty-one crews were trained for the highly secret task. They had to be proficient at very low flying, training by night or in simulated darkness and at tree top height. A Lancaster flying so low was a memorable sight, the only one I saw on its rounds was a standard aircraft, AJ-D (AJ ahead on the port side) so low over Godmanchester on the afternoon of April 24 that I was able to read the red serial as ED763. In all external respects it was a standard Lancaster.

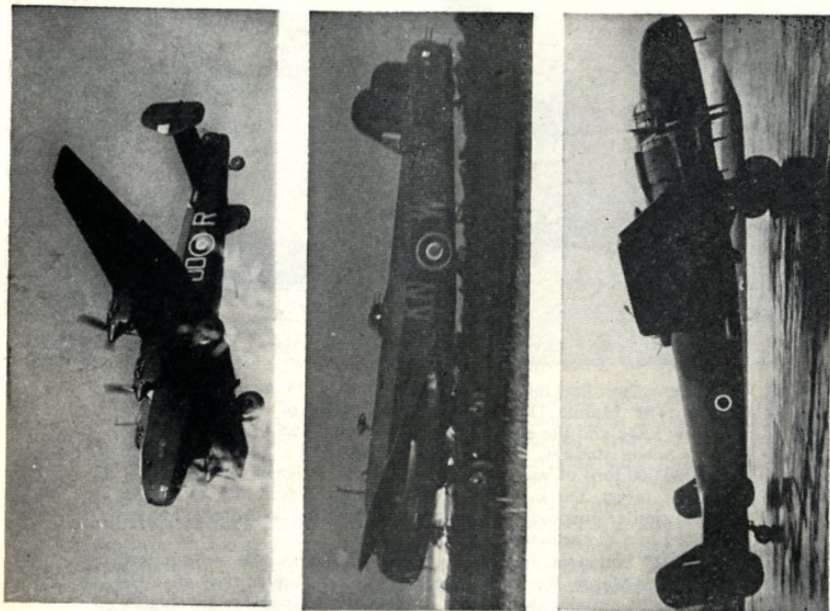
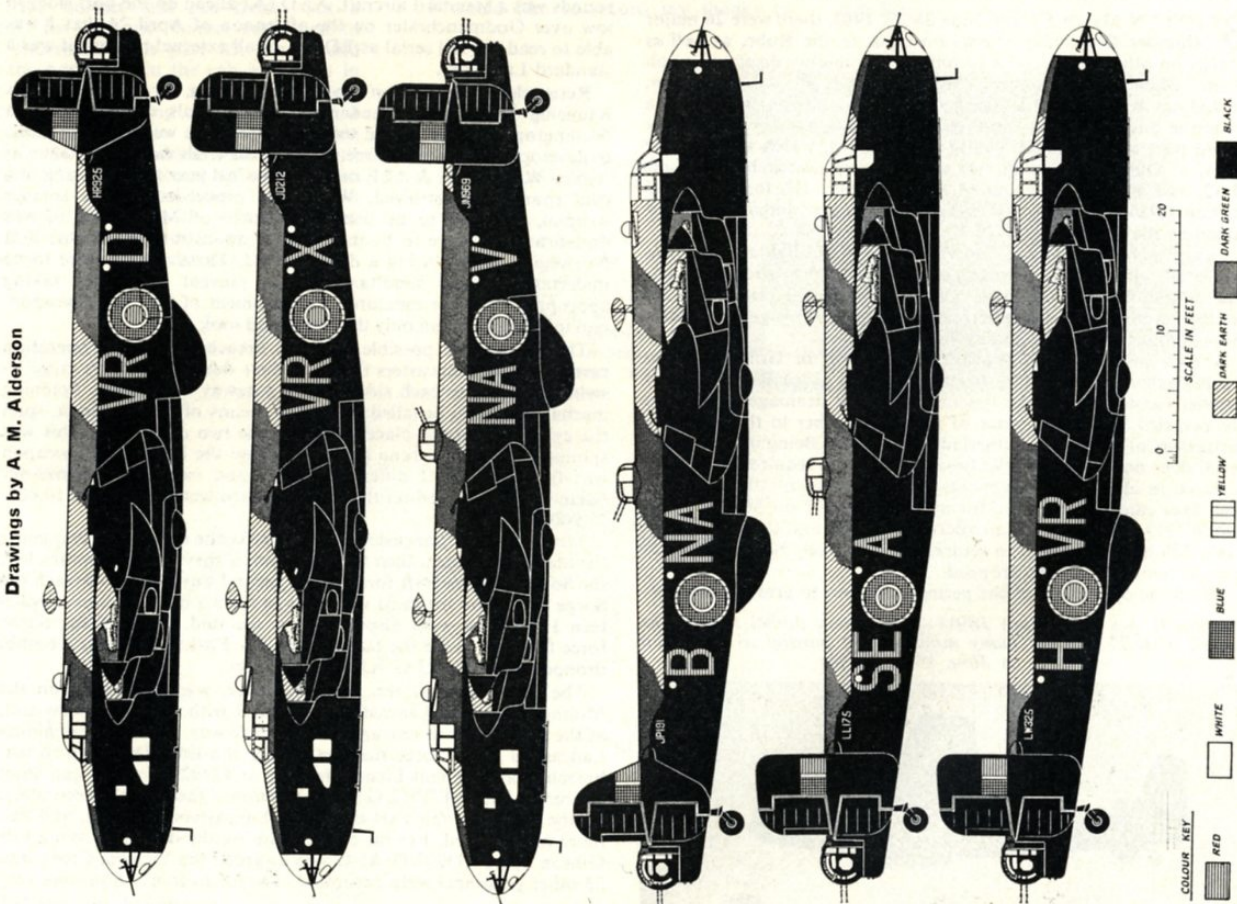
Research went apace on the special weapon, Dr Barnes Wallis's bouncing bomb, which underwent initial trials dropped from a Wellington. Casings proved too weak and there was no mean panic to develop the weapon in time. Some of the trials were undertaken at Ashley Walk, the A & AEE range, where last year an end casing of a trial round was retrieved. Work also proceeded on the smaller weapon, intended to be used by a force of Mosquitoes of 618 Squadron who were to bounce their weapons into the Tirpitz in a Norwegian Fjord during a daylight raid. These attacks were to be undertaken almost simultaneously to prevent the enemy taking appropriate counter measures. Development of the 'naval weapon' had to be delayed and only the Dams raid took place.

There were five possible dams to breach during the operation carried out by Lancasters shorn of their dorsal turrets. A large V-strut was fitted to each side of their cutaway bomb bays. Spinning mechanisms were installed which, by means of a chain drive, spun the cylindrical bomb placed between the two arms; when this was spinning the arms sprang apart to release the bomb. Each weapon was found to be of differing weight, and various compensatory balances were needed on the bombs, which weighed around 10,000-11,000 lb.

Three waves of Lancasters were to make the attack, the first going for the Mohne Dam, then the Eder and, if they had any bombs left, the Sorpe. Five aircraft forming the second wave were to breach the Sorpe Dam, and the third wave was to form a mobile reserve. Nineteen Lancasters were dispatched on the raid. Four of the Sorpe force failed to make the target, and only Flt-Lt McCarthy's bomb, dropped from ED923/G:AJ-T, hit the dam.

The great event of the night, however, was the assault on the Mohne Dam. Five Lancasters attacked it with varying success and, as the sixth began to line up, the dam gave way. The three remaining Lancasters in the force then set off for the Eder Dam, which was breached after Flight-Lieut Shannon in ED929/G:AJ-L and Pilot Officer Knight in ED912/G:AJ-N positioned their bombs accurately. Of the nineteen which set out, eight Lancasters were lost, and two more had aborted. For his courage during the operation Wing-Cdr Gibson flying ED932/G:AJ-G was awarded the Victoria Cross, and 33 other personnel were decorated. The losses to 617 Sqn were very

Continued on page 261



Top to bottom: Halifax OO-R of 1663 Conversion Unit slips in over the hedge. Halifax II Srs 1 (Special) JB781:KN-W sets out on the night's operation. Her dorsal turret has a base falling—not all Halifaxes had this. She took part in the Hamburg raid of July 24/25, 1943. The prototype Halifax III at Radlett, in an earlier state than that mentioned in the accompanying article (IWM).

Left: The Halifaxes portrayed here were in use at Middleton St George in the winter of 1943-44, except for SE-A then based at Croft. The other aircraft are illustrated in the state in which they were seen setting off for mining operations from Middleton on April 18-19, 1944, and well depict the diverse state of the aircraft then on the Halifax squadrons. HR925:VR-D is a Mk II Srs 1a with the usual 54 inch outside diameter fuselage roundels, fin flashes 2 ft x 3 ft, and 4 ft red codes. JD212 is VR-X and NA-V is JN969. This and NA-B:JP191 have a small fairing at the turret base, and differing shape fins. SE-A, the Mk V, is LL175. The last one is LW325:H-VR. No upper turrets were fitted to any of 419 Sqn aircraft (VR code) and 431 (SE) and 434 (WL) did not then have H2S radomes. On their early Halifax III's they had a belly gun position. Squadrons which arranged their codes as on 419 Sqn were 415(GU), 424(QB), 427(ZL), 429(AL) and 433(BM). Those with unit codes ahead on the port side and aft on the starboard included 420(PT), 425(KW), 431(SE), 432(QO) and 434(WL).



A Halifax Mk V Srs 1 (Special) NA-P of 428 Sqn photographed at Dalton in mid-1943. Note absence of dorsal turret (Photo via R. W. Elliott).

heavy, as had been expected, but it was decided to keep it intact as a force for special operations where precision bombing was required. To the end of the war it was maintained in this sole capacity.

By the end of June bomb damage in the Ruhr was considerable. In an attempt to prevent this continuing the enemy constantly improved his night-fighter forces, equipment and techniques. Because of this Bomber Command decided to switch the target areas. Short nights did not permit very deep penetrations, although one raid was directed by 5 Group on the Zeppelin radar works at Friedrichshafen, after which the small force flew on to North Africa. But such operations were not really viable due to servicing problems. Instead, a devastating assault on Hamburg was planned. Four raids upon this city proved to be the most destructive carried out by Bomber Command. Hamburg was the second largest German city. Within its confines were 3,000 industrial targets and some 5,000 others mainly connected with commerce and shipping, not to mention the large Blohm and Voss shipbuilding yards. Nearly half the U-boats had been built at Hamburg and one might argue that the civilian population was largely geared up to the war effort, virtually paramilitary. Hamburg was an easy target to find, its shape distinctive on H2S radar, now coming into use and used for the first time during a Berlin raid of March 1/2, 1943, when one of the participants was Wing-Cdr Mahaddie, flying Stirling MG-C:R9257, one of the first to be fitted with the familiar H2S 'bump' on her belly. To throw the Hamburg defences into confusion it was decided to use, for the first time, short metallic strips, code name 'Window' which would confuse enemy radar. This it did very effectively and of the 791 aircraft dispatched on July 24/25 (which included Stirlings AA-E:BF518, MG-X:EF364 and WP-G:EF441) 741 attacked and only 12 were lost. Seventy-four aircraft were carrying H2S. On July 27/28 when LS-J:EH893 was participating 2,417 tons of bombs rained down and the first fearful firestorms rampaged through the city. Two more raids followed. Of the 3,095 aircraft dispatched, 2,630 claimed to attack and 87 were lost. Half the houses in Hamburg were destroyed, one third of the population perished. Germany, responsible for the destruction of Warsaw, Coventry, Rotterdam and many other towns and cities was being repaid in kind.

On August 17/18 571 out of 600 bombers dispatched delivered a very effective raid on the rocket and pilotless aircraft research station at Peenemunde on the Baltic Coast. Known to have been in the force were Stirlings MG-M:JA932, LS-F:EH929, JN-P:EH949, WP-A:EH944 and Halifax KN-K:JB839. Enemy fighters were very active, aided by bright moonlight, flares, searchlights and the observer corps. Despite the use of 'Window' 40 bombers were lost and 32 seriously damaged.

On August 23/24 the target was Berlin, the 'Big City', which suffered three attacks in ten days but cost the Command 125 aircraft. By now it was clear that the Stirling and Halifax were suffering very badly at the hands of the defenders. With Lancaster production going well it was decided in September to restrict Stirlings and Halifaxes to more shallow penetrations, and after October the Stirlings flew very few major operations, although contributed much to the mine laying campaign. Two types of mines were being dropped, of 1,000 lb and 1,800 lb at the rate of about 1100 per month. These needed to be laid from around 600-800 feet which meant these were quite hazardous operations. Some 13,776 mines were laid in 1943.

During a raid on Düsseldorf on November 3/4 a new radar aid came into use, GH, which was virtually Oboe in reverse. Four squadrons of Lancaster IIs had the gear and 38 machines were dispatched on this raid although in only 15 aircraft did it function. These aircraft also had provision for carrying 8,000 lb bombs and about half the load fell within half a mile of the aiming point.

By now night raids were mighty undertakings as hundreds of bombers swarmed across the sea, and whose return brought very considerable problems, especially when the weather turned bad. Feint attacks were being mounted and the Main Force was often cunningly routed to disguise its eventual target. Mosquitoes flew ahead dropping 'Window' and sometimes they operated independently misleading the enemy then bombing widely separated targets, bringing confusion to the defenders. Other Mosquitoes of the newly introduced 100 Group were beginning limited bomber support by engaging night-fighters. How different it all was from a year earlier.

In June another major change had come in the Command. For the present it entirely gave up any idea of conducting daylight operations. On June 1 the day raiders—Bostons, Venturas and Mitchells—were transferred to Fighter Command, to form part of the new Tactical Air Force supporting the invasion. Throughout the summer they continued attacks in daylight on fringe targets, with massive fighter cover in very elaborate operations, the largest of which was in support of a feint invasion of the Pas de Calais in September. From November, by which time they were part of 2nd TAF, the day bombers were thrown into the vital campaign against the flying-bomb sites then mushrooming in France. This continued until May, 1944.

The aircraft

The principal night bombers of 1943 were the Lancaster I and III, Halifax Mk II series 1, 1a and Mk V, Stirling I and III and Wellington X. Basically all wore the same camouflage colours—Dark Green, Dark Earth and Night which (usually) terminated in a straight line, high on the aircraft's side, although on some Halifaxes termination was still in a wavy line. Codes were Dull Red, like serials, but within these bounds there were various points of detail appertaining to modifications and markings.

Halifax IIs with the turretless Z Type nose entered service late 1942, but it was about March, 1943, before they were plentiful. One of the early ones was NP-U, which had a red-white-yellow gazelle-like animal painted on its nose. Perhaps this is a useful time to point out that the individual nose decorations on RAF bombers were by no means common. Indeed quite often a visit to any airfield of those days revealed very few aircraft so decorated. Frequently though, sorties were recorded on aircraft by small painted bombs in varying colours—usually red, white or yellow, but it is quite wrong to think of almost all the bombers carrying adornments. Lancaster OL-V:R5484 was quite typical and when seen on March 13 was bare of individual trimmings.

Since the start of the war the finish known as Night, colloquially as matt black, had undergone several changes, roughly from semi-smooth to rough and then smooth. Often a mixture of finishes was in evidence. When the Stirlings went to the large Sebro works for overhaul after accidents or battle damage they emerged, in late 1942 and through 1943, in a very matt finish, also seen on some aircraft in squadron service, and particularly on those of 15 Squadron based at Bourn where the Sebro machines were test flown. LS-M:EF345 and BK699:LS-E had this very flat finish, also BU-Q:BK600 (BU aft on starboard side) and OJ-N:BK601 (OJ forward of roundels both sides). All of these aircraft had FN 50 turrets.

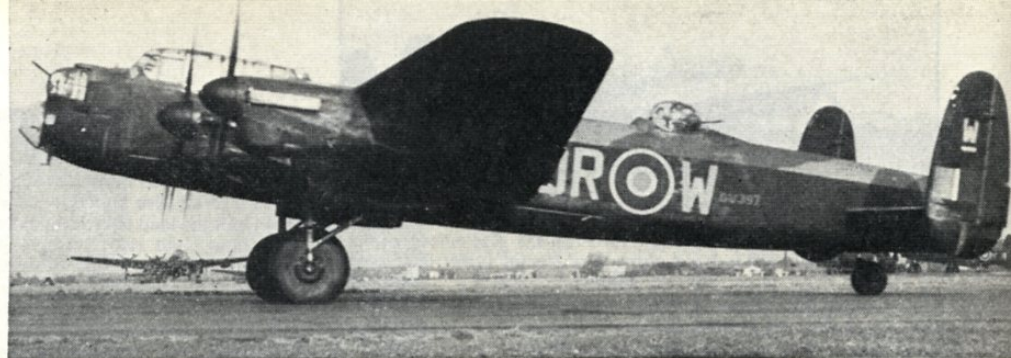
The number of windows in Stirling fuselages varied irrespective of mark number. BU-Q and OJ-N each had three in the starboard rear

Continued on next page



Lancaster I R5740 KM-O of 44 Sqn exhibits the small forward style of lettering 44 had in 1942-43. She was lost on June 26, 1943 (IWM).

DV397 joined 61 Sqn late in 1943 and was lost on a Berlin raid of March 24/25, 1944. Her side windows appear to have been over-painted. An interesting item is the 'W' repeated on the fin (IWM).



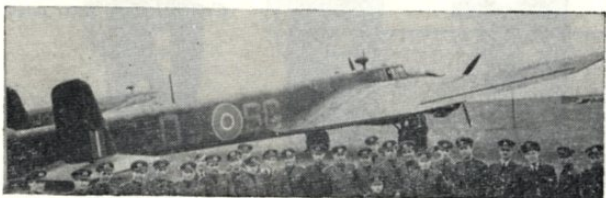
side of the fuselage and four in the port. They also had a bulged forward window in the lower cockpit sides, again a feature of Stirlings of various marks and vintage. The first squadron Stirlings to carry H2S radomes were those of No 7, like MG-M:R9261 thus recorded March 27, with FN 50 dorsal turret. Both types of the latter were still to be seen on squadron aircraft and those of the principal Stirling Conversion Unit, No 1651. This unit's markings underwent two rapid changes in the spring of 1943. First, individual letters were repeated on some aircraft such as 'RR'. In May the unit began to exhibit unit codes, initially BS applied ahead of the roundels on both sides. BS-U was R9147 when seen on June 13, and was fitted with the old-style FN 7 'Botha turret'. By July No 1657 Con Unit had aircraft coded XT (letters ahead of the roundels), and others were flying coded OG, letters similarly placed. Some of the XT coded machines acquired small codes after the manner of 7 Squadron. The latter's codes, incidentally, varied in size.

On April 16 1943 I recorded OJ-F:EF336 landing at Lakenheath. Instead of the usual position for bombs recording operations, she had a row of twelve red ones beneath the fuselage serial on the port side. Like many Stirlings then in the squadrons her exhaust collector rings were black.

By August 1943 the Stirlings of 622 Squadron (formed August 10) were in evidence. Coded GI they had unit codes aft on both sides of their aircraft, GI-C:EF461 being noted on August 19 at Mildenhall. The same day I recorded Stirlings of 199 Squadron at Lakenheath and these too had squadron codes all aft as on EX-N:EF450 and EX-U:EE941. But with them was a solitary exception, EX-C, whose unit codes were forward on both sides! OJ-F was now EF412 with two rows of yellow bombs under her serial. Some of 149's aircraft had various length aerals below the fuselage as evidenced by OJ-M. EF481:BU-J seen the same day had BU aft on her starboard side. XY-V was similarly marked, and 90 Squadron also opted for codes fully aft, as on WP-D:EF431 recorded October 30, 1943. All of these Stirlings had FN 50 dorsal turrets.

Expansion of Conversion Units and Operational Training Units was obvious as new codes appeared. So with 1651 Con Unit when QQ codes were seen as on QQ-E:EF386 and YZ-P:N3721 the latter still fitted with an FN 7 turret. Another new Stirling squadron was No 196 which moved into Witchford, for operations, on July 19, 1943, and whose aircraft with unit codes ahead of both side roundels was typified by ZO-D:EH961. Nearby the Stirlings of 75 Sqn had unit codings all aft as on AA-E:BF518, and JN-P:EH949 from its 'C' Flight. A Stirling with a nose motif was YZ-T:EF389 which when seen on November 27 had a red Mercury figure. Of all the Stirlings I recorded in 1943 the most unusual was surely that seen on the evening of July 24 in the usual British camouflage, but with USAAF 'star and bar' markings on the fuselage side. She wore only a white star with white bars flanking it, and seems to have escaped full identification.

As with the Stirlings so with other bombers where code position-Whitley V P5065:D-SG typifies one of the long-service machines used by OTUs such as 3 and 42.



ing was concerned; no rule can be laid down. No 97's Lancasters opted throughout 1943-44 for unit codes ahead on the port fuselage side, and aft of the roundel on the starboard, a frequent Lancaster feature seen on OF-R:ED875, Mk II QR-L, GT-E:EE178, OL-V:ED876 and OL-M:W4905 which had fourteen yellow 'bombs' painted on her nose alongside a luscious nude named 'Sugar Plum'. All these were noted July 17. Expansion of some squadrons to three flight level had already brought along the 'squared' individual letter and a bar painted above the individual letter. Mid 1943 witnessed a second unit coding such as XU for 7 Squadron. In this instance it was short lived but during the time these letters were in use they were applied small as on the 'MG' aircraft like Lancaster MG-Z:JA585. Some squadrons kept two unit codes to the end of the war, others featured 'barred' individual letters.

From a modelling point of view where the Lancaster is concerned one needs to discover which window arrangement was appropriate the small slit windows being seen well into 1944. No serial block from which these windows were deleted seems ever to have come to light but up to the JB range they were usual, although one sometimes did see earlier aircraft on which they were overpainted, or from which they had even been deleted. They were a feature of ED911:OF-E, for instance, and the aircraft flown by Wing Cdr Guy Gibson on the dams raid. Another feature that always occasioned interest was the fitting of, or provision for, a ventral turret. A handful of early Lancasters had them and some of the later ones had provision for them. OF-W noted on August 15 had such a turret. At that time H2S radomes on the under fuselage were still relatively rare on Lancasters. The Pathfinders seem to have had them first and GT-M was fitted thus at this time, also OF-A:JA923 which had the full array of side windows. EE129:MG-Y was another.

Since there were so few, one was lucky to catch sight of one of 617's specially modified machines, but AJ-N (AJ aft on the starboard side) flew into view for me on August 31. She retained her special bomb gear and was without a dorsal turret. Shortly after this 617 Sqn was recoded KC which letters were worn by EE150:Z and EE130:M in time for its famous raid on the Dortmund Ems Canal on September 15.

Normal Lancasters in use at this time and which I noted were ED999:EA-A, EE187:DX-Y and JA703:KM-A. More interesting were some then flying without nose turrets. A surprising sight over Peterborough on August 23 was ZN-V (ZN aft of the roundels on both sides) which was fitted with a nose like the Lancastrian of later years, also ventral and dorsal turrets. September 26 brought another thus modified but uncoded.

My October Lancaster recording included OF-H with ventral turret installed and on 30th I had a close view of another oddity. I had seen on September 13 a Lancaster at Newmarket with Dark Green and a very dark shade of grey camouflage. I was sceptical of what I had seen at first but on 27th and 30th I had a close look at the aircraft and was able to confirm the colouring. With 'E' aft in Dull Red she was ED952 of the SIU. Three of her companions had now acquired similar paintwork.

Introduction of the Lancaster II has previously been mentioned. To about May 1943 those in service appear to have had electric propellers with the small spinner. Then there appeared Mk IIs with hydraulically operated propellers with large streamlined spinners. KO-B (KO forward on port side aft on starboard) had these features, like JI-H:DS813 and JI-K:DS824 in use late November with codes placed as on 115's aircraft. These latter two had bulged bomb doors to permit carriage of 8,000 lb bombs, a usual feature of the Mk II, full side windows as on JI-L:DS736 and FN 64 belly turrets. The latter for which provision was usual were not always fitted. Other



DS652, a Lancaster II of 115 Sqn, photographed at East Wretham in the summer of 1943. She was destroyed in a crash on June 12 (IWM).

Mk IIs in use at the end of the year included DS827:A⁴-D (these unusual markings signifying 115 Sqn's 'C' Flight and being recorded at Witchford in December) and DS761:KO-W. Other Lancasters in use at this time included OL-M:JA705 with highly polished spinners and engine cowlings and another variant of 'Sugar Plum' on its nose, and LM394:VN-R (codes forward on port side aft on starboard).

From a modelling viewpoint the main point to watch about a 1943 Halifax would be the nose/dorsal turret/fin combination. Mk IIs with Z noses were common by the spring. TL-P:W7881 was one of these which had no dorsal turret (codes on port forward, starboard aft positions). TL-L:W7823 was a Mk II in use in March with the old 'Hudson-type' turret and the original nose. TL-R:W7874 was a Mk II with Z nose, no dorsal turret but fitted with H2S radome when recorded April 20. White and grey codes had still not entirely vanished for TL-L mentioned had them, also Lancaster EM-W (EM ahead on port side aft on starboard) which hove into view on April 2.

Mk II series 1a aircraft with shapely perspex noses were around in some numbers by the summer, such as TL-A:HR865 with four-gun dorsal turret and H2S radome. On June 5 LQ-Z (LQ forward on both sides) was seen to have coming at her dorsal turret base similar to that on the Lancaster. One with very large codes was EZ-V. There were often variations in the code positions on any one squadron for LQ-X of July 7 had LQ aft on the starboard side.

By the autumn of 1943 some Halifaxes on the squadrons were fitted with the new rectangular fins. On November 1 35 Squadron's examples with radomes and 4-gun turrets included TL-O:HX160 and TL-J:HR817.

My first logging of a Halifax III was on July 24 1943. It was R9534, the prototype, shortly before fitted with new Hercules VIs, and was flying from Radlett. Her propellers were of the electric type, and the outer engine nacelles had been lengthened to about three feet aft of the trailing edge. She had no dorsal turret, and two radio masts after the manner of many Mk Is. Under surfaces were yellow, upon which were painted Type C roundels. Aft of the fuselage roundels was a yellow 'P' without any circle, and she had a 'Z' type nose. The first production Mk III flew about August 1943 and the second (HX227) on August 27. During October the latter was tested at 63,000 lb all-up. I first recorded a Mk III production machine on October 4 in standard trim. HX232 was the first taken on squadron charge, by No 35 also on October 4, becoming TL-H but it was 466 Squadron which fully equipped first and 433 also had some of the early examples. HX239 was HD-G in November.

Throughout 1943 Handley Page carried out various experiments with Halifaxes. L9515 featured streamlined air intakes, bulbous nosed ailerons and was the first to fly, albeit a mock up, with rounded wing tips during tests in May and June. During the latter month she had wing slats installed and her tail turret was removed and faired



Stirling R9147:U of 1651 Conversion Unit at Waterbeach early 1943, where she had arrived in January, and became BS-U as mentioned in the article.

over. Much work was undertaken on DG281 which in February was flying with 'square' fins and rudders and an FN 64 ventral turret. More bombers than is commonly supposed had ventral turrets, fitted to discourage belly attacks by Bf 110s and Ju 88s. In October, for instance, DG281 was flying with twin ventral .50 guns. Early in the year V9985 tested enlarged bomb doors, but this modification was apparently never introduced on squadron aircraft. Retractable tail-wheels were an attractive idea on all the heavies, but they brought considerable troubles. R9534 was testing one in February, 1943 and EB208 in July. Both V9885 and EB208 also tested anti-shimmy tail-wheels. HR845, another experimental machine, had a mock-up of the Bristol B.12 turret in May. She later featured in an attempt to improve range, with forward belly tanks also experimentally installed in W7650.

Most of the Wellingtons in use belonged to Operational Training Units, and these had mainly Mk IIIs. In front line service for much of the year however was the Mk X. One of the squadrons using these was No 192 which flew radio counter-measure operations from Feltwell, and whose equipment included OT-S:HE498 in August. Most of the Xs had hydraulic propellers, whereas Mk IIIs like X3372 noted April 9 with 'F' in red aft and a small white F on the nose had electric propellers. JS-X:BK449 of 16 OTU had its unit coding all forward whereas OP-A:R1370 a Lancaster with a very large astro dome had unit codes fully aft. AM-O:DV921 of 14 OTU seen June 1943 wore extremely thick lettering, no side windows and had twin fixed aerals like a Wellington 1. ZB-O a Mk III had ZB aft on the starboard side forward on the port like another Mk III of July 1943, HS-G of 109 Squadron, also Mk III PL-U. A grey and green Mk VI with Sky under surfaces was noted with red codes, possibly of 109 Squadron.

Very occasionally one saw aircraft with 'impossible serials'. One such I well remember was Wellington III UA131 with a red 'L' forward, seen with 1483 Flight, Newmarket, on August 30, 1943. She was one of a group there with a target towing hook immediately aft of the tailwheel.

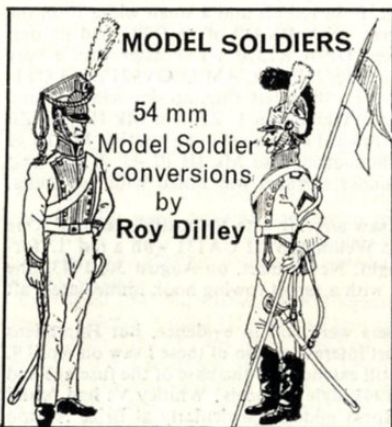
Earlier types of bombers were still in evidence, but Hampdens were getting rare. The most interesting trio of these I saw on April 9. Their upper camouflage still extended to the base of the fuselage and they were even wearing 1941 style roundels! Whitley Vs had found a new role as tugs for Horsa gliders, particularly at Brize Norton whose aircraft had a light blue identity number ahead of the roundel and on the nose. Whitleys in use in 1943 included BD537:XH-A (XH aft on starboard side, forward on port) seen March, 1943, also BD627:SG-Q and N1419:ZV-M of 19 OTU noted in November. Barely coming into the true bomber category was 'MH-D' long since with 51 Sqn but which still languished in its coastal 'sea-sick' grey and green with white sides and under surfaces and red codes. Z9487:GO-H was in the markings of 42 OTU and Z6722, with a red P outlined white, came from 3(c) OTU but was in bomber colours. K9026 which had been with 19 OTU still had camouflage extending down its fuselage sides, and had its original tail turret. A Mk V coded RK-U had unit codes forward on both sides, and the glider tugs of 295 Sqn merely carried an individual letter aft, like B-BD415 seen towing off Horsa DP152 in September. XE-K (XE forward):K9010 in standard 1943 colours was seen on September 8 and another interesting specimen was Z6472 with 'HG' ahead of its roundels over-painted and at one time with 24 OTU. Its wing under surfaces were Sky, its under belly was black and it had experimental wing de-icing boots. A low flying Whitley target-tug seen over Morecambe Bay on September 5 was coded KG-E. She came from 3 OTU where Z9219:KG-Q and Z9298:KG-A had been in residence.

It was still possible to come across a Blenheim I, the most interesting group which I recorded hailing from 17 OTU. They were in

Continued on page 288



Above: Two views of the completed model described below. This model is interesting in that it simulates real life. 'Old Bill' buses were converted to troop-carriers using the 'B' Type bus chassis.



A PART from constituting in themselves a fascinating aspect of the military miniature hobby, model vehicles, whether of horse-drawn or motorised types, can lend valuable assistance in the presentation of figures for display or photography. Properly used in groups or dioramas they add to the realism of a scene and can also provide reasons for unusual stances or activities for the figures. A good example for this usage was in the desert war diorama, created a year or so ago by John Sandars, part of which showed a platoon of infantry 'de-bussing' from the rear of a 3-ton lorry. This exercise allowed figures to be depicted in several out of the ordinary attitudes, jumping and landing from a height, crouching, rising to march away, etc, so adding movement and variety to a scene in a way that would have been difficult to justify without the presence of the vehicle.

Similarly, the loading or unloading of a wagon, its maintenance, repair, or negotiation of an obstacle can all offer

virtually unlimited opportunities for presenting models in action poses other than those of a fighting nature, which really takes up only a small part of a soldier's time.

Fortunately many model kits of vehicles are available in a number of scales, but even so, certain types and periods are inadequately represented, and it becomes necessary in order to portray them to scratch-build or convert existing kits. I have received requests to feature such a conversion in this series of articles, and have chosen to show how the Airfix kit of the LGOC 'B' Type bus can be used as the basis for a troop-carrier of the Great War.

On the outbreak of hostilities in 1914, a British Expeditionary Force was quickly organised and sent to France, together with all its necessary impedimenta which included some 1,200 motor vehicles, of which only a small proportion were pre-war Army equipment, the majority being commandeered from civilian firms under the Subsidy Impressment Scheme. Subsequently, as the war continued, thousands of motor vehicles were required for service with the Armed Forces, among them a range of types built on the sturdy and reliable LGOC 'B' Type chassis.

Much of the actual conveyance of troops was accomplished in the forward areas by Auxiliary Omnibus Companies of the Army Service Corps, equipped with standard London buses, painted khaki and with the lower deck windows boarded up after removal of the glass. However, so vast were the numbers of men required, particularly for such 'set-piece' battles as that on the Somme in 1916, that their transportation presented an acute problem, and many lorries, including some built on 'B' Type chassis, were further modified, by the addition of seating, to fill the role of troop-carriers.

Converting the Airfix kit to represent one of these vehicles has much in common with the modification of the actual prototypes, and results in a model of considerable character, that will be extremely useful to complement World War I figures in scenes or displays.

The Conversion

Kit required is the Airfix 'B' Type Bus, or 'Old Bill' Bus in 1:32 scale.

Commence by locating and cementing the chassis side-members (parts 24 and 25) to the lower deck floor (part 5). Then

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AIRFIX magazine



Avro Lincoln

MAJOR CONVERSION USING LANCASTER AND SHACKLETON KIT COMPONENTS

By John E. Young

ONE of the most attractive of all conversion projects which is quite obvious to all aircraft model enthusiasts is the lovely Avro Lincoln which was the mainstay of Bomber Command until the mid-1950s when the jet bombers took over. The Lincoln was in essence simply a 'stretched' Lancaster (and it was originally to be named in the Lancaster series). Prior to the appearance of the Frog Shackleton, however, a Lincoln conversion would have had to have been largely a scratch-building job. The Shackleton was, in its turn, a development from the Lincoln, and the Frog kit provides the all-essential long span wings which are a major feature of the Lincoln. Apart from the Lancaster and Shackleton kits you need a few more odd items, mainly from the Halifax. You may well have these if you've done any of the Halifax conversions featured in past issues. The Lincoln is, of course, quite an expensive model to make but the cost is well worthwhile, I think, for the chance to add to your collection a model which is not likely to appear in kit form.

Fuselage. Prepare the fuselage halves as follows: Cut off the nose section of Lancaster fuselage 2 mm forward of the bomb doors (on panel line). Cut off rear section 4 mm aft of the bomb doors (on rivet line). Remove dorsal turret fairing on the rivet lines just below and at rear. Use the rivet lines as a cutting guide. Blank off all fuselage windows with plastic sheet or body putty except the forward window ahead of the wing root. Modify this window aperture to 5 x 4 mm as shown on the plan. Fix a clear plastic window. This can come from your spares box or the model's stand. Remove longeron (raised strip) below wing location aperture.

The method used to extend the fuselage centre section and nose entails the use of a second Lancaster fuselage from the spares box (from a York conversion as described in *Airfix Magazine*). However, the balsa plug method can be used as normal. I tried this method for a change and the results were quite satisfactory. The parts required are cut from the second fuselage by following the plan and using the rivet lines as a

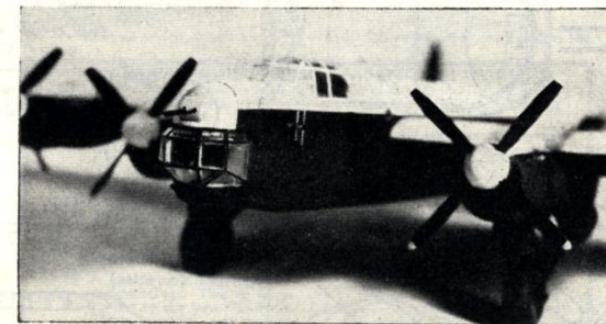
Left: Useful nose detail view shows the distinctive nose transparency, nose arials, small white maintenance stencils, and crew access hatch and ladder (M. J. Larsen).

cutting guide. The centre section is cut in an inverted 'L' shape. This is then cut and filed to fit. The nose section is dealt with in the same way, the steps in the nose section being cut before fitting.

The nose and centre sections are then cemented to the fuselage and 10 thou plastic strip used to strengthen the joints. (Cement inside halves.) Next, add the cockpit floor and control panel and cement the modified fuselage halves together. When dry, the nose and centre section are then shaped to blend in with the main fuselage. Any resultant gaps are filled and shaped. All rivet detail is removed during this operation and the completed fuselage given a final clean and polish with 'wet and dry' paper.

The nose turret is made from a spare ball turret, such as in the Airfix Liberator kit, and adding a 20 thou circular base. Build up one of the turret's flat sides to complete the ball shape. The machine gun mounting is made from scrap plastic and holes drilled in to take the guns, which are added near end of conversion. The turret platform is made from 60 thou sheet and fitted inside the nose section, the front of the platform taking the shape of the turret. Add turret and fill in gaps.

Next, cut and shape turret housing cover from 15 thou sheet and assemble over nose. A paper template comes in useful here. Lay a small strip of 10 thou plastic around the nose as a 'key'



Close view of model's nose showing guns (missing in heading picture of real aircraft) and arials on side of nose.

to fit the housing cover joint between it and the fuselage.

The rear turret housing is next treated by chamfering back and adding a 20 thou strip to the base of the turret position. The rear turret had to be moulded in the usual way, as described in previous *Airfix Magazine* articles. Make a balsa mould from the plan, which is as near as possible the correct shape, from information available to me. Cockpit and rear turret detail is then added (except machine guns) if required.

The bomb aimer's window (or glass house) is made from clear plastic sheet (I used an Airfix stand arm), cut and butt-jointed together. Careful assembly during this operation will ensure a good scale likeness. The bomb window fairing is built up from sheet and body putty.

The H2S radome comes from a Halifax conversion. This requires a small amount of shaping to allow it to 'sit' against the fuselage. The tailwheel also comes from a Halifax, but any suitable one from the spares box will do. Note the shape, however.

The cockpit transparency and rear turret can be left until the conversion is nearly complete.

Wings. The first task with regard to the Shackleton wing is to remove all the rivet details, but retain the panel lines. Cut off wing tip tabs. The break in the trailing edge is cut and shaped to follow a straight line. This is achieved by cutting away the wing section shown on the drawing and fitting in the kit aileron. Cement wing halves together, first cutting off wing location tabs. When dry add the new wing tip. Fill in underwing landing light holes and fit a new one as on the plan.

Extend the wing span by fitting a 60 thou strip to the inner

Constructional drawings on next page
Text continued on page 272

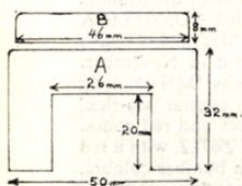


Fig 1A Fig 1B

Templates for dashboard extensions

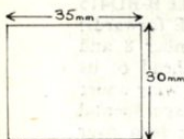


Fig 3

Plate for fitting across top edges of chassis immediately beneath bonnet (optional)

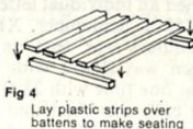


Fig 4

Lay plastic strips over battens to make seating

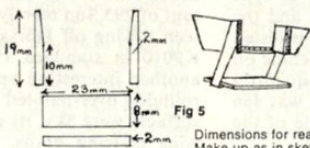


Fig 5

Dimensions for rear step. Make up as in sketch

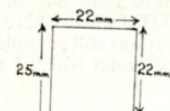


Fig 7

Dimensions for side screens

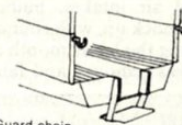


Fig 6

Guard chain fits on these hooks

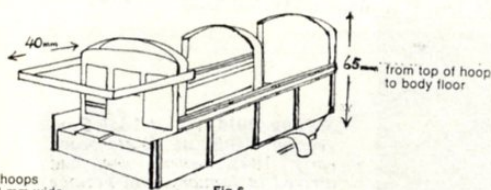


Fig 6

Construction of tilt and hood framework hoops

Drawings and numbers keyed to text.

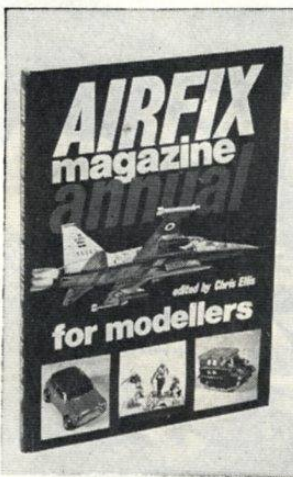
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- AN 8 Line Jaeger, advancing
- AN 9 Line Jaeger, kneeling, firing
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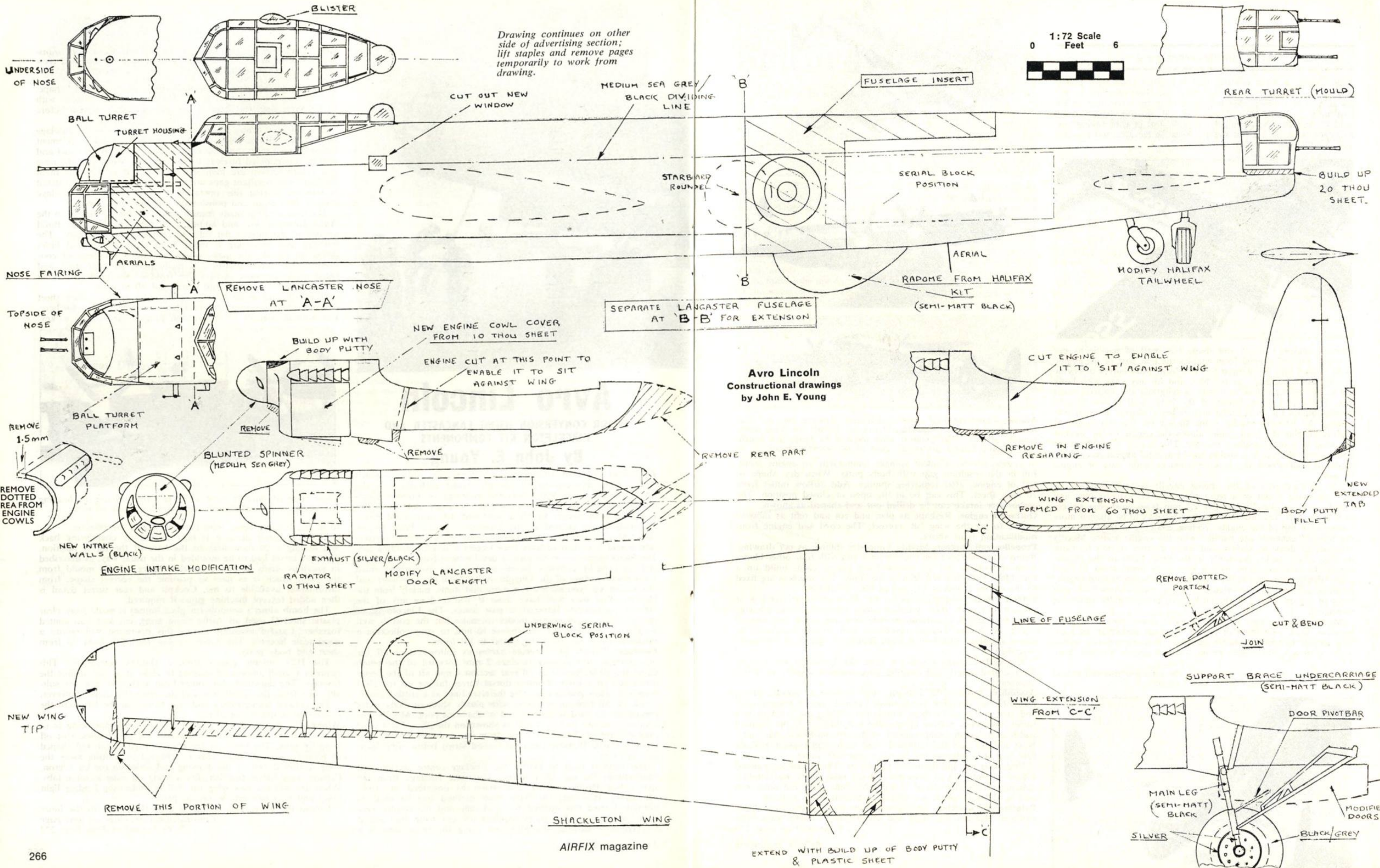
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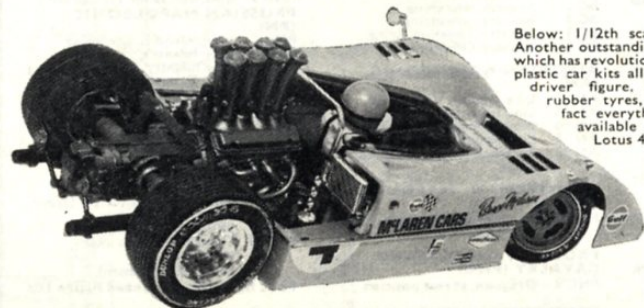
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Above: 1/12th scale McLaren M8A, one of the outstanding "Challenger" Series, which includes the LOLA T160, the PORSCHE CARRERA 910 and the NISSAN R381. All the kits have outstanding detail, some even include drivers. Synthetic rubber tyres and motorisation for just £2.99 each

Below: 1/12th scale MATRA MS11 Formula 1. Another outstanding Formula 1 Big Scale Car Kit which has revolutionised and set a new standard for plastic car kits all over the world. It includes a driver figure, beautifully detailed synthetic rubber tyres, amazing engine detail, comprehensive decals—in fact everything to make an outstanding model. Other kits available in this Series—Lotus 49B, Lotus 49, Honda F1, all at £4.40



Below: 1/72nd scale VOSPER FAST PATROL BOAT, "PERKASA", approximately 16" long and over 290 parts. The kit contains a terrific amount of detail. It can be finished either as a scale model or it can be motorised for use in water. It includes detailed Oerlikon and torpedoes, instrument panels and even quanting poles. The hull is made in two colours and there is a crew of six. Price £4.40



Below: The magnificent LOLA T70 MARK III in 1/12th scale. The kit with so much detail it just cannot be listed fully here, but some examples include: rack and pinion steering, working lights scale wheels with detailed pneumatic rubber like tyres, full cockpit and dashboard detail, scale disc brakes, accurate chassis construction, working suspension, removable front and rear cowling, opening gullwing doors and quarter windows, working door handles, motorisation, through an electric motor, accurately scaled and fully detailed V8 Chevrolet 5.5 litre engine, including carburettor detail, rocker covers, dynamo, oil cooler, oil tank, oil cooler header tank, Hewland gear box with remote control linkage, air filter, distributor, water pump, engine oil dipstick, hydraulic fluid tanks, fuel tanks and caps, fuel lines, plug leads etc., radiators, exhaust detail etc., decals, spare wheel, etc. For still more detail, or if you can't believe it, go and buy one, only £7.99



Below: Tamiya's 1/12th scale FERRARI 312B FORMULA 1 Kit, with rack and pinion steering, working independent suspension on all four wheels. Racing tyres in compound rubber with accurate scale tread pattern, driver, finely detailed 12 cylinder, horizontally opposed engine. Correctly scaled with fantastic detail. Price £4.40

Above: 1/6th scale HONDA CB750. Tamiya's outstanding model. It must be built to be believed. Individual link metal chain, synthetic rubber saddle, handle bar grips, footrest, gaiters, accurately reproduced tyres, extraordinarily detailed engine. The front mudguard is actually made of metal with a life-like chrome finish. Also the springs are metal to reproduce the real suspension as accurately as possible. Price £7.99



Left: The SALADIN ARMoured CAR, which is now much in use in Ulster and can be seen frequently on TV News. Tamiya's 1/35th scale kit is motorised and a crew member comes with it. It's a model really worthy of this famous Armoured Car. Price £1.15



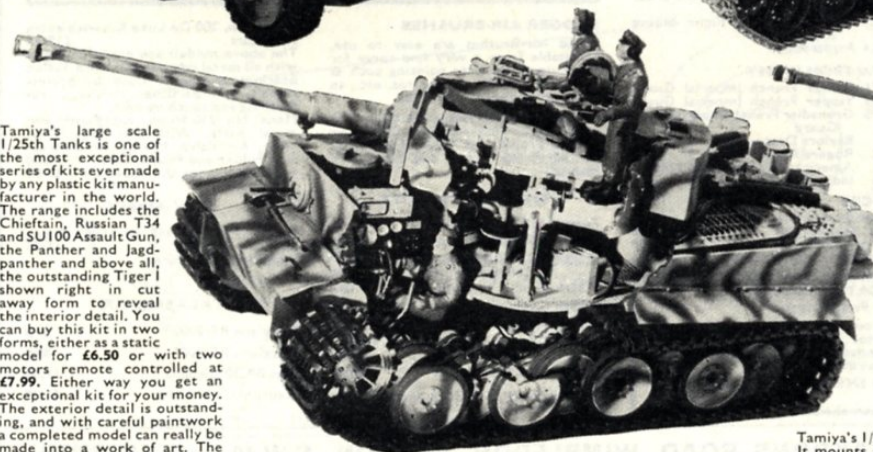
Left: 1/35th scale U.S. ARMY M4 DUSTER, self propelled anti-aircraft gun, which comes with a crew of three. Also included are a great number of detailed parts including shells, small arms etc. The M42 was first produced in 1953 and has served in most parts of the world, including Korea, Japan, Vietnam and with NATO Troops in Europe. Price £1.80.



TAMIYA'S PZKW2 can be built in two different versions, the F or the G. With the kit comes four Afrika Korps soldiers and one tank crew member. The kit has realistic plastic track, decals, and reveals a remarkable standard of plastic modelling which will delight even the most fastidious modeller. In 1/35th scale for just 99p. The KUBELWAGEN comes with a crew of three, one officer and two soldiers. As with all Tamiya Military Miniatures, the parts of the body are separated and a variety of poses can be created. Also supplied are a number of small arms and parts for the soldiers so that a good degree of authenticity can be achieved. The Kubelwagen has an open as well as a closed canopy supplied with the kit, and again, the detail and accuracy of the final 1/35th scale model is remarkable. Price 70p



Above left: The SHERIDAN is one of the most interesting modern high performance light tanks in the world today. Tamiya's 1/35th scale model is an accurate reproduction, very finely detailed and includes motorisation, a crew member for the turret, decals, plastic tracks etc. Price £2.30



Tamiya's large scale 1/25th Tanks is one of the most exceptional series of kits ever made by any plastic kit manufacturer in the world. The range includes the Chieftain, Russian T34 and SU100 Assault Gun, the Panther and Jagd-panther and above all, the outstanding Tiger I shown right in cut away form to reveal the interior detail. You can buy this kit in two forms, either as a static model for £6.50 or with two motors remote controlled at £7.99. Either way you get an exceptional kit for your money. The exterior detail is outstanding, and with careful paintwork a completed model can really be made into a work of art. The thick plastic used helps to give the overall impression of weight and strength that the original Tiger I had. The inside of the tank also allows for a great deal of creative building as can be seen from the picture. A crew of three is also included with the kit.



Tamiya's 1/35th scale SHERMAN is the M4-A3E8 model used during the latter half of the 1940s. It mounts a 76 mm gun. The model, as with all Tamiya Tanks, includes plastic track and motorisation. Many tank models are also supplied in two motor remote control version. In this way the tank can be made to go forwards and backwards and is also steerable through a hand control box, allowing for a high degree of realistic action. The single motor Sherman costs £1.60 and the Remote Control version £2.40



1/35th scale BRITISH CENTURION MARK III TANK which was awaited for many years by thousands of modellers all over the world. When it was produced earlier this year its remarkable accuracy and detail astounded commentators and critics everywhere. By any standard of plastic kit modelling it is an exceptional model and no military enthusiast should miss building it. The model is motorised and has, of course, plastic tracks, one crew member and very fine decals. Price £2.60



In addition to armoured fighting vehicles, Tamiya makes a series of 1/35th scale soldiers. Each figure comes in several parts so that they can be stuck together in various positions of the modeller's choosing. Also included with each set of figures are a wide variety of small arms, equipment and personal utensils and articles. These figures are ideal for the military painting enthusiast since a tremendous amount of detail can be painted into them, as even such detail as the creases in the clothes have been moulded into the plastic. The range consists of German Tank Crew (20p), German Infantry Soldiers, U.S. Army Tank Crew, British Infantry, German Afrika Korps, German Army Officer set (shown above) and, coming soon, German Paratroop Troops (each 24p).

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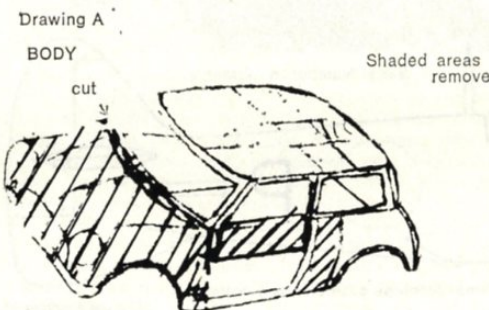
Conversion to a BSCA Formula One stock car using the Airfix Mini kit

by Martin De'ath

IN the last few years stock car racing has become a high speed and very competitive sport. It has evolved from the very untidy and dangerous 'old bangers' to a very colourful and safe motor sport.

The two main governing bodies in this field are Spedeworth and BSCA, who lay down very strict rules concerning the construction and safety of the cars, the drivers, and the viewing public.

The stock car I chose for this conversion is a BSCA Formula One, which uses large capacity engines such as V-8s, straight 6s, etc. It is a very easy conversion as long as the stages are followed correctly.



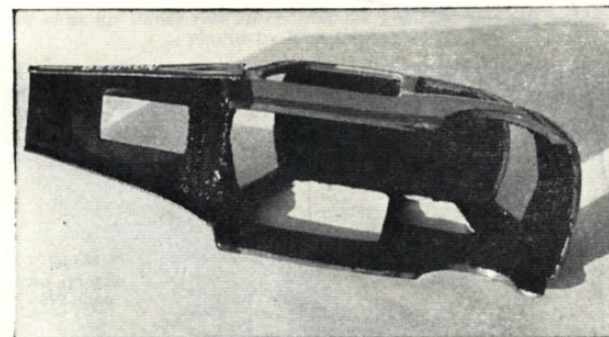
Stage 1—Body

The basis of this conversion is the Airfix Mini of which only the body is used (keep the other bits as these will be used in another conversion at a later date). First, cut off the front on the line indicated—see Drawing A. Once this is done the body is ready for channelling.

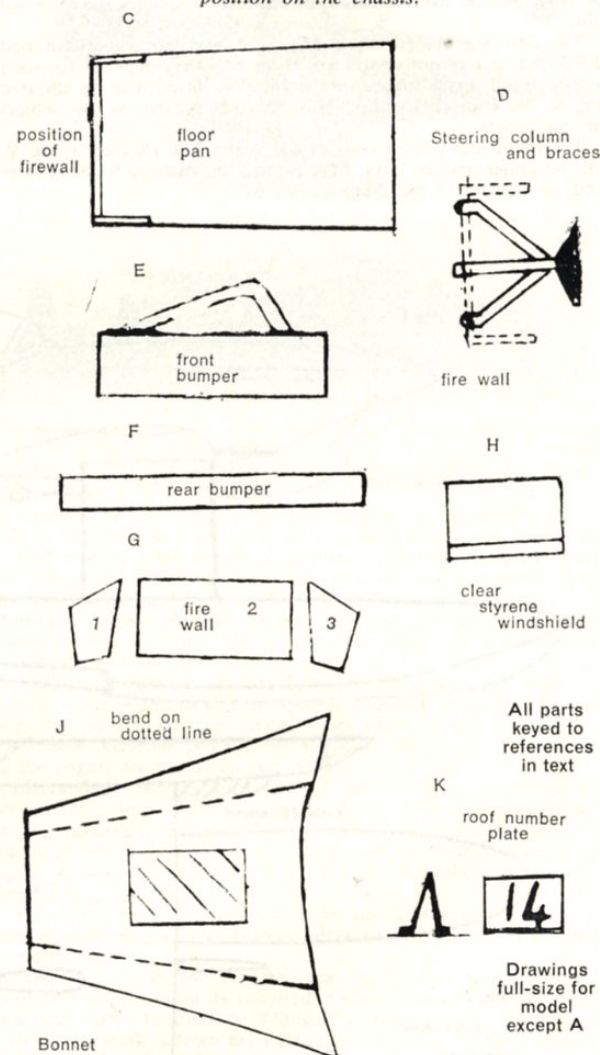
A 10 mm section is taken out of the body lengthways, just behind the middle door pillar, a 12 mm section is cut out of the width. This is cemented back together again and left to dry. When dry, a 6 mm section is cut from the doors both sides (Drawing A), this is to allow the driver an easier exit.

The bonnet is made from 20 thou plastic card cut out

Underside of hull top showing new joint lines, and emphasising the narrow section when a 12 mm slice is taken from the middle. Note also how doors are cut away as shown in drawing above.



View of completed model finished in blue and yellow livery. Mode of assembly of this simple conversion allows the complete body to be removed for display; the body, in fact, just rests in position on the chassis.

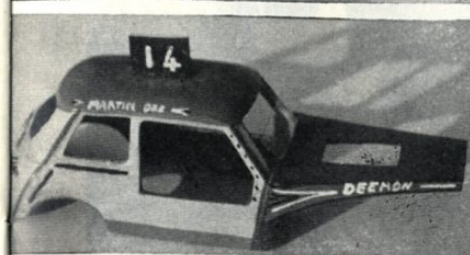
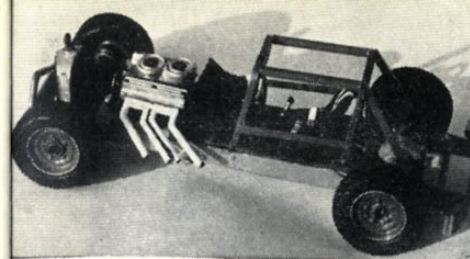


(Drawing J) and folded down along the dotted line. A hole might have to be cut out to clear any engine detail, etc. The joints in the body are now filled with plastic wood or something similar.

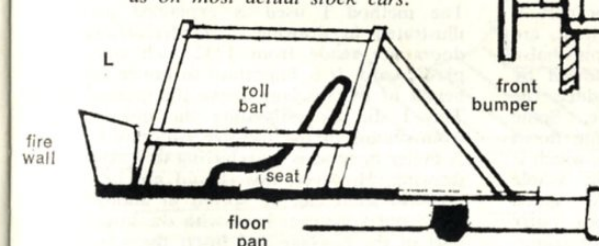
Stage 2—Chassis

The chassis is made up from 1½ mm plastic card (Drawing B). Once this has been made and the type of engine decided on, the engine mounts can be positioned to match the new power unit.

AIRFIX magazine



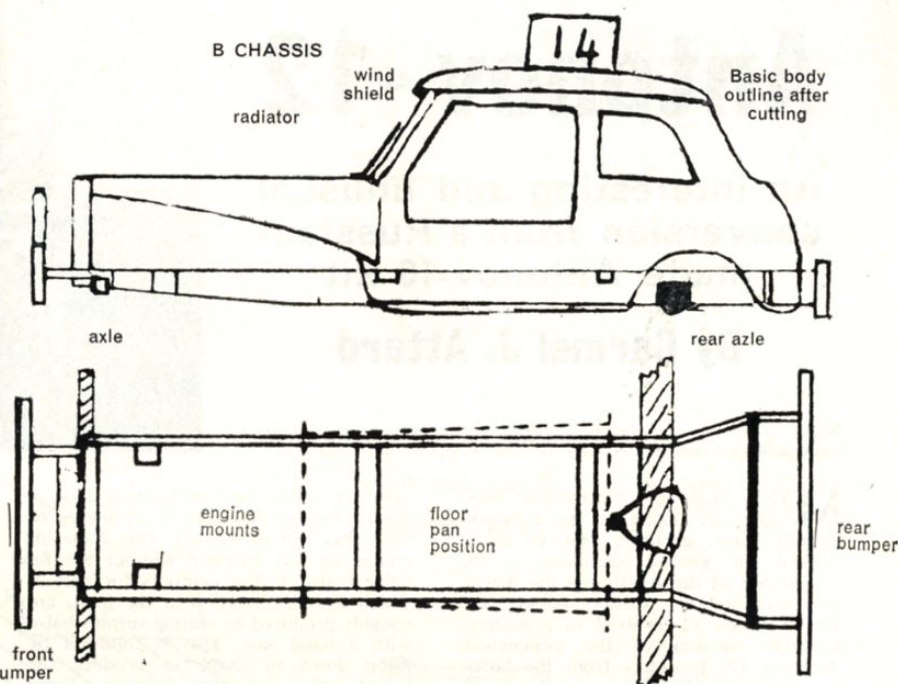
Above, top: Completed model with body removed showing new engine, fire wall, and roll bars. Above: Close-up of removable body showing cut away windows and doors. The number and inscriptions can quite legitimately be painted free-hand as on most actual stock cars.



I used a V-8, but the straight 6 from the Airfix Jaguar 420 kit would be ideal.

Radiator (Airfix Mercedes), and front and rear bumpers are then positioned. Just about any radiator can be used, from other vintage car kits.

The front axle is from a Model T Ford; the rear axle is Capri (any similar rear axle would do). The main thing with converting and scratch building is to use the odd bits and pieces left over from other conversions. Next the floor pan is cut out of 20 thou



plastic card (Drawing C) and positioned as shown (Drawing B). The fire wall is cut out and positioned on the floor pan, and the steering wheel and braces are cemented on to the firewall. The roll cage is made up from square section styrene as in Drawing L.

The seat is now positioned and seat belts added. The wheels and tyres are Airfix slot racing type. The body is finished off with a clear styrene stone shield and a roof number plate.

Stage 3—Finishing

The colour scheme I used is red, blue, and yellow. This is most important on a racing car of any type if it is to stand out and be recognised among the rest of the pack. Paint the roof a contrasting colour to the rest of the body, red, blue, yellow, or white depending on what rating you want the car to be.

Avro Lincoln—from page 272

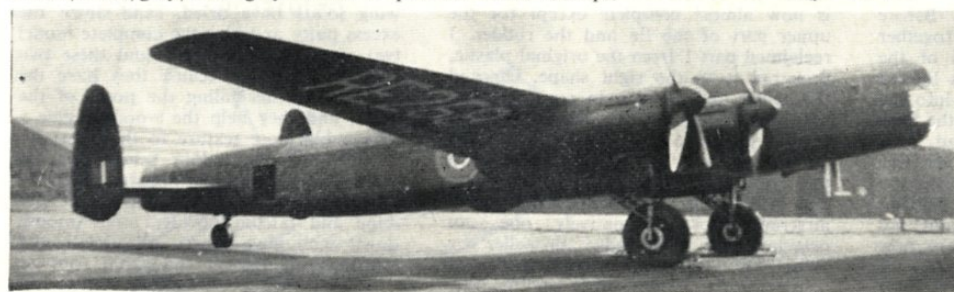
radome is semi-matt black as are the undercarriage legs. Sello-tape was used to get the dividing line between upper and lower colours on the fuselage. Spinners are Sea Grey Medium.

Wing transfers came from the Shackleton kit and fuselage and tail markings from Almark sheets. The serial number on the fuselage and underwings was a home-made stencil, the figures being touched up by hand after removing stencil. All transfers were matted down with a mixture of matt varnish and Humbrol Flatting Agent. Exhaust stains over the wings are a mixture of brown/black/grey/dark grey. Serial is painted white. Cockpit

framing is Medium Sea Grey and rear turret and bomb aimer's framing Night black. The earlier colour scheme applied to Lincolns is shown in the picture below.

Full-size drawings for wing and fuselage serials

RF555



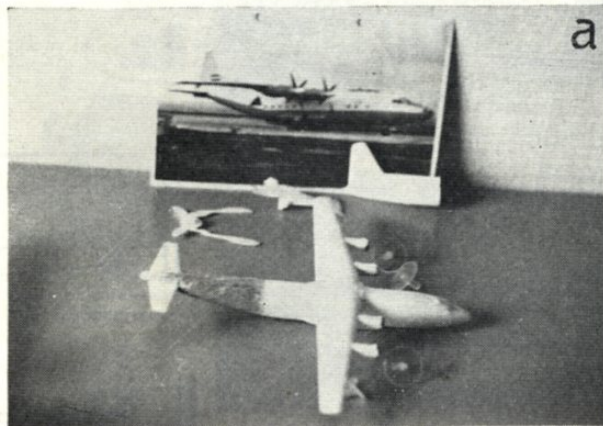
Left: The model shows the later standard colour scheme for most Lincolns. Earlier Lincoln finishes included white and black and earliest of all was matt Dark Green, Dark Earth, and Night with C type roundels as shown on RE258. This machine had the serials under the wing and on the rear fuselage, probably on the open door in this case (Ronald O. Hepburn photo).

Antonov -12

An interesting and unusual conversion from a Russian-made Antonov-10 kit

By Carmel J. Attard

Right: The An-12 model, here shown under construction, makes a good addition to a 1:144 scale collection. Model is actually 1:150.



MANY modellers, particularly those who are interested in transport aircraft, have, at some time or other, noticed the general similarity in the appearance of the An-10 and the An-12, civil and military version respectively. The Antonov 12, evolved as a military transport version of the commercial Antonov 10. It differs from the latter, having a re-designed rear fuselage with integral loading ramp. Also it is extensively used by the Soviet Air Force as a standard heavy military freighter and paratroop transport. The An-12 has been supplied to the air arms of Algeria, India, Indonesia, UAR, and Poland.

I became interested in the An-12 when one of these belonging to the Iraqi Air Force used to call at Luqa airfield in Malta, on a refuelling stop, en route to Barcelona. Somehow I managed to obtain enough details to make a scale model of this giant aircraft and add it to my collection.

Disliking the idea of building the model from scratch, I used the An-10 made by the Soviet State Factory to 1:150 scale as the basic kit. Many readers know that like most other Soviet kits, this is a crude model compared with western standards. Besides the work involved converting the model, I also found a way to produce the undercarriage, transparencies and decals, none of which are provided.

The conversion from an An-10 to An-12 is truly simple and straightforward once you have obtained an An-10 kit from a Czech or Polish pen friend. The main stages are as follows:

Fuselage and undercarriage: Before glueing the two fuselage halves together insert a weight inside the nose of the model. This is done by taking a lighted candle, letting the hot wax drip into the nose section of each half. As the wax solidifies press in a piece of lead. You will be surprised to notice how effective the method can be. The two halves are then assembled and allowed to dry out for 24 hours. The rear part and tail assembly that need re-building are now sawn off.

Referring to drawing 1, make up part

3, which holds the rear loading door, a block of balsa $3\frac{1}{2}$ inches \times $1\frac{1}{2}$ inches \times $1\frac{1}{2}$ inches will be needed. The shape includes the aft fuselage without the fin spine (part 2). The contours for part 3, which includes a recess at the joint, are roughly produced by cutting surplus balsa with a hand saw. This is followed by filing down to shape to produce the round effect of the fuselage. Some medium, coarse and fine sanding down may also be needed. Glue part 4, which is shaped spruce, in position. The whole assembly of parts 3 and 4 is now glued to the fuselage. Additional body putty is used to fill any gaps or depressions. Allow to dry and follow by sanding down the surplus putty.

The tailplanes need reshaping at the end as the fuselage is now wider than that for the civil version. Slots to take the tailplanes are cut with a razor blade. This operation should be carried out very carefully. Use a considerable amount of body putty to leave a uniform seam when it dries and is smoothed down. At this stage the model looks like the one shown in photo 'a', without the wings in position.

The next stage is to produce the fin spine, ie, part 2. This is shaped from a piece of balsa $3\frac{1}{2}$ inches \times $\frac{1}{2}$ inch \times $\frac{1}{2}$ inch. I used a sharp knife and then sanded it to the final smooth shape. Before this is glued to the rear fuselage insert a piece of blade measuring roughly $\frac{1}{4}$ inch \times $\frac{1}{4}$ inch, this is held vertically as part 2 is pushed on top of the rear fuselage and glued in position; this serves as reinforcement. The tail unit is now almost complete except for the upper part of the fin and the rudder. I reclaimed part 1 from the original plastic, prepared it to the right shape, checked the height and glued it in position.

I discovered that the engine nacelles of the kit were short by as much as $\frac{1}{16}$ inch. How I extended the nacelle to the required size is explained step by step in drawing 2. I used the clear plastic airscrew discs, alternatively one can originate the four-bladed propeller by using the teeth from a comb made of brittle plastic. Blades made up this way

would have to conform to the diameter of the discs.

Make up the undercarriage from scratch, using a ballpoint plastic cover. The method I used is explained and illustrated in drawing 2. Undercarriage doors are made from 1/32 inch thick plastic card. It is important to notice the height of the fuselage above the ground. This I did by estimating the distance from photos of the full-size Antonov-12. A better method is by referring to a scale drawing. However, this should not be a problem as it can be solved in another way: put your eyes level with the lowest part of the fuselage and insert the wheel stem inside a hole which is pre-drilled in the wheel well. Then glue the main undercarriage in position. Without allowing this to dry, glue the nosewheel in position. This was made from round sections cut from spruce, thus forming the tyres. With plenty of time left for the undercarriage to dry, adjust the height of the fuselage above ground level till the desired true height is reached. This is not an easy task but worth every extra minute.

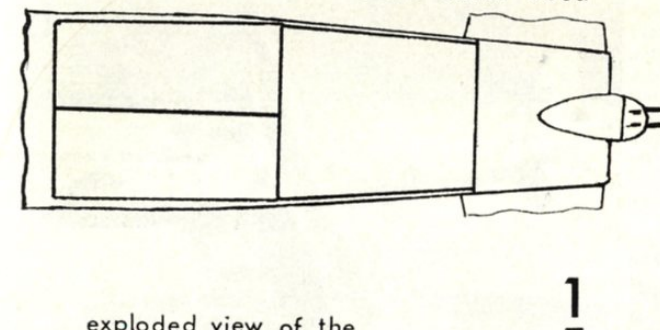
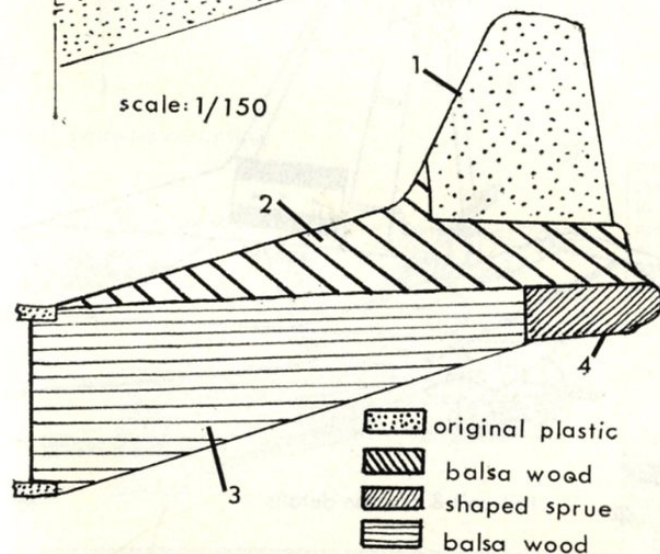
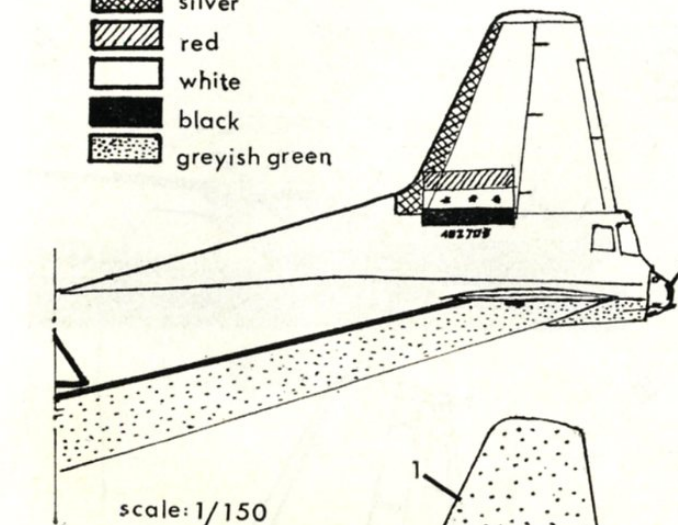
Wings: Surface detail on the wing parts is very coarse and needs to be sanded down. The three wing parts are glued together and are allowed to dry. File the trailing edge of the wings as this area tends to be on the thick side. The wing is now glued to the fuselage once the extension to the engine nacelles, described earlier, has been done. Although the wings seem to fit quite nicely, these will require some filler at the roots underneath the wings. After the wing joints have dried, sand down the excess putty and give the complete model two coats of varnish. I found these two coats very useful because they have the effect of further filling the pores of the balsa, and they help the wood to give a reasonably close texture to the plastic.

Note: As the colour scheme of the original An-10 kit is moulded into the plastic parts, this has to be filled with dope and talcum powder mix. Smooth down with glass-paper. All aerials and antennae on top of the cabin roof or

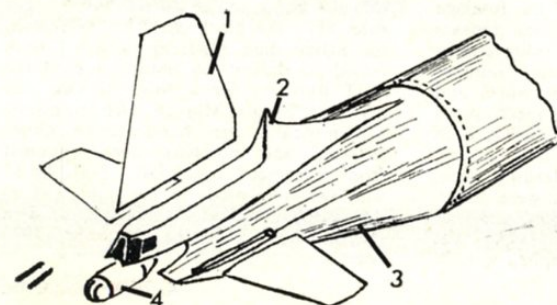
Continued on page 278

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- silver
- red
- white
- black
- greyish green

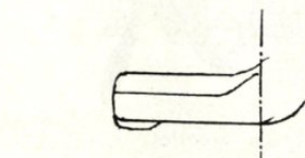


exploded view of the parts incorporated

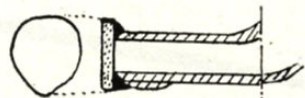


C

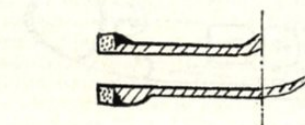
extending engine nacelle by $\frac{1}{16}$ "



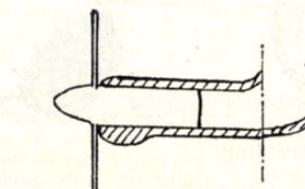
1) assemble wing parts, leave them to dry.



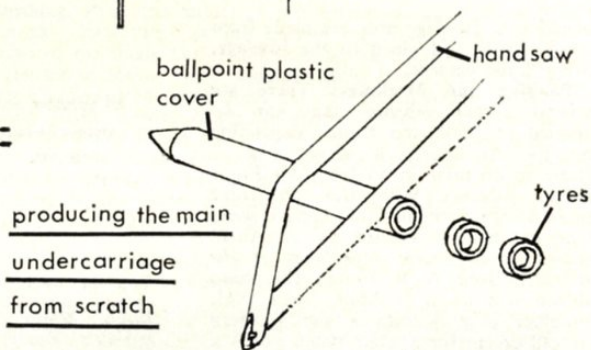
2) cement extended part to nacelle, fill the gap between with body putty.



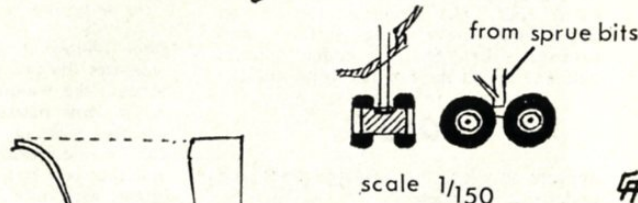
3) prick hole with a hot needle, file bore to match existing one.



4) file externally to shape



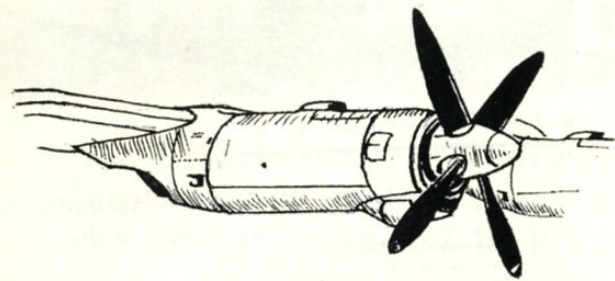
producing the main undercarriage from scratch



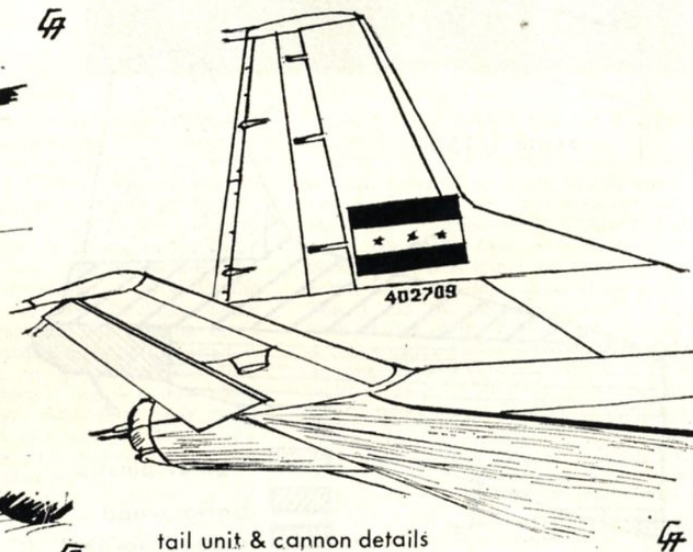
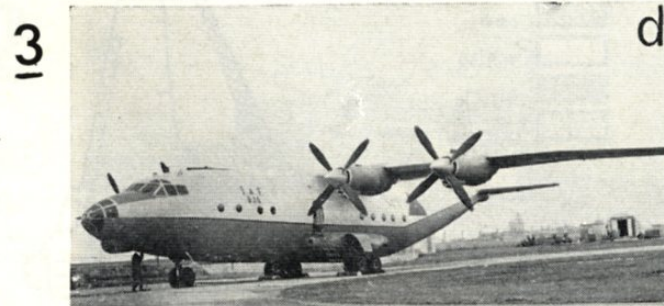
undercarriage door

2

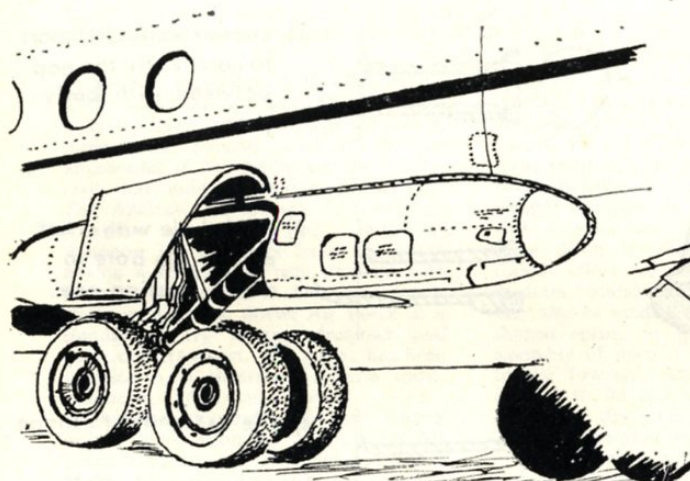
277



detail of engine nacelle



tail unit & cannon details



main undercarriage mounting

beneath the fuselage nose are made from scrap plastic and glued to the fuselage, using liquid cement.

Painting and Markings: There are several colour schemes that can be applied to finish the model, depending on the Air Force it serves with. I chose to do mine in an Iraqi Air Force colour scheme. With this air force there are two schemes that can be used. One of these is carried by an An-12 shown in the book *Warplanes of the World* by John W. R. Taylor. The photo shown was taken in Malta circa 1965. Fuselage is grey with a silvery sheen overall except for a white patch over the cabin roof. IAF triangle appears on upper and lower wing surfaces and fuselage sides. The fin badge appears half-way up on the fin. The Iraqi number

000

appears in black on fuselage sides and underwing surfaces.

The other colour scheme, which is the one I used, appears in photo 'd'. This shows the An-12 at Luqa airfield, Malta, during 1969. Fuselage and engine nacelles are dark greyish green, upper fuselage and part of upper top of wing are semi-

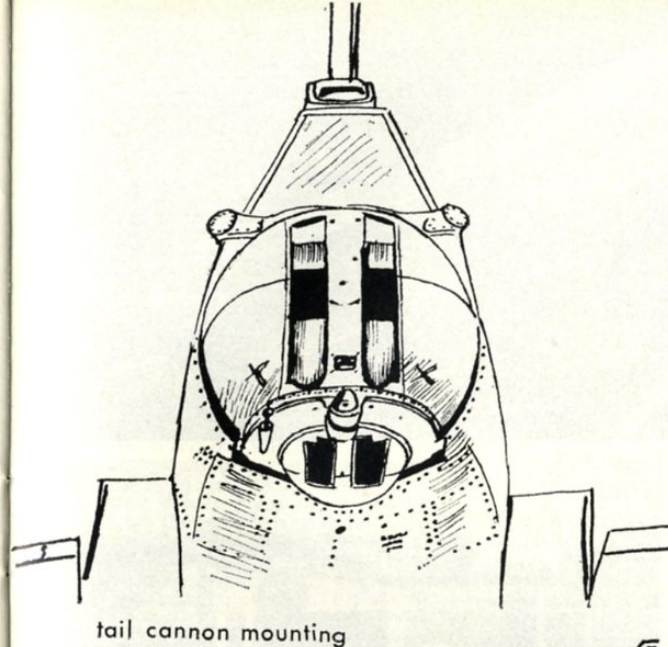
All numbers and details keyed to text.

Top of page: The actual aircraft at Malta. **Right:** The author's model of the same machine.

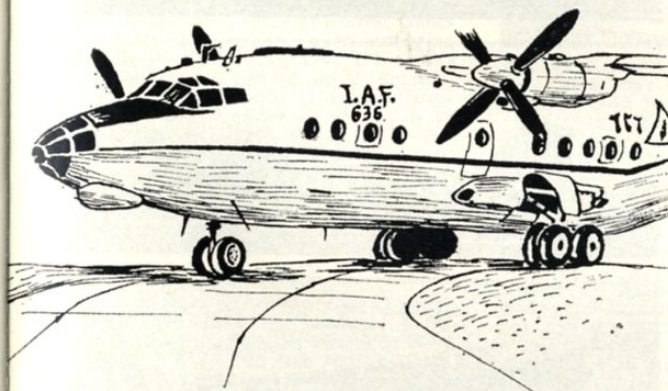
gloss white. A dark blue cheat line separates the two colours of the fuselage beneath the windows. Fin badge appears in the same position as the other colour scheme with a small serial number 402709 underneath. Hubs of wheel and undercarriage bay were olive green, pipes in bay are white, all small lettering is in red, propeller is royal blue, and opening of engine nacelle plus all leading edges of wings, tailplane, and fin were silver. I hand-painted the nose, cabin, and rear windows in gloss black. When the fuselage paint was dry I applied a 1/32

inch thick black cheat line which I obtained from a Letraset sheet called 'Lines rules 557'. The black cheat line resembled the actual dark blue one which I have found so difficult to obtain. I used the ABT transfers for a Mig 21. One can also use Frog's Mig 21 IAF transfers. 636 in Arabic were hand-painted. Other lettering and numbers were obtained from Letraset sheet 190. The An-12 windows were made in the same way as described in my letter which appeared in *Airfix Magazine* in the November 1970 issue.

AIRFIX magazine

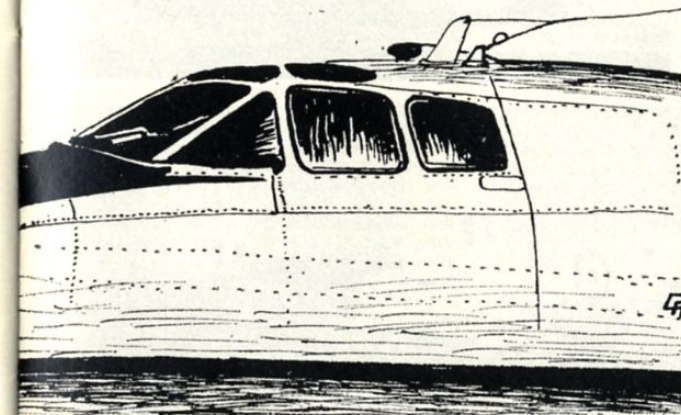


tail cannon mounting



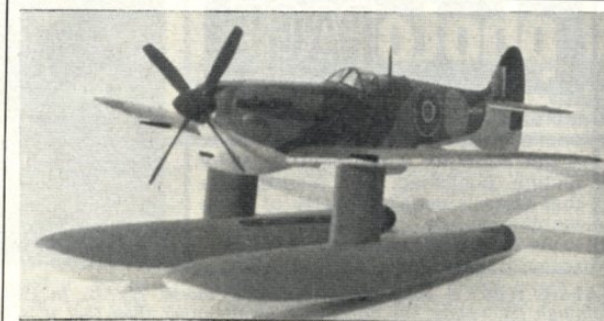
cockpit canopy

Details recorded and sketched by author from actual aircraft during refuelling stops at Malta



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Spitfire Floatplane—from page 273



balsa wood and/or filler, build up the tropical filter to the shape shown in Fig 1 and photos. File or cut the exhaust stubs to obtain three large stubs per side, instead of six small. Fill in the stand slot and put the tailwheel in the spares box

Wings. Fill in the undercarriage bays with filler, putting the undercarriage in your spares box, and smooth off. Fill, also, the two port radiator mounting holes. Make a small cylindrical oil-cooler from sprue to the shape shown in Fig 2 and cement to the wing just outboard of these holes. Cement starboard radiator in place on other wing. Carefully remove cannon fairing from upper surface and make new ones from body-putty further back, as shown in Fig 1. Cut off the two short gun stubs. Now cement the wings and tailplanes to the fuselage.

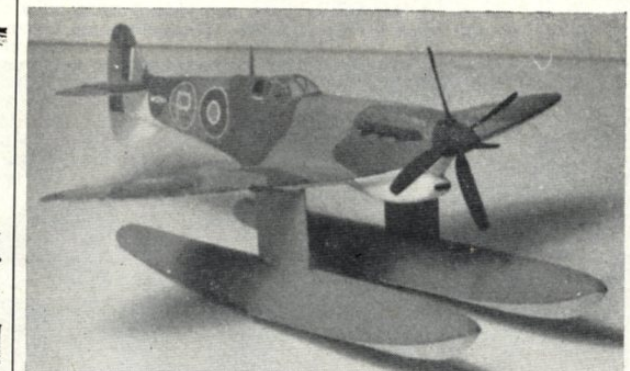
Legs. Cut four pieces of 20 thou Plastikard to the shape shown in Fig 3 and curve them in pairs (ie, two inner and two outer). When assembling, fit a 3/32 inch square balsa spar in each to stop them flattening. Cement these to the wings so they are 1.6 inches apart, and 1/32 inch back from the leading edge. They should just fit outside the two coolers.

Floats. These are Frog Shark floats and are exactly right. The rudder hinges on these are rather clumsy and the rudders are too small anyway, so remove the hinges and make new rudders from 40 thou plastic card and cement to rear of floats. When the legs are dry and firm, cement the floats in position, checking alignment as you do so.

Finishing. Paint the model as per instruction sheet, ie, Grey/Green/Sky. Paint the legs and tops of the floats Grey and the bottoms of the floats Sky. Paint framing on the cockpit canopy and cement in place. Apply wing roundels, from decal sheet, to wings. Cut squadron codes from fuselage roundels and fit these roundels where shown. Apply fin flashes to fin—yellow circled (P) for prototype (from Hales or Almarks decal sheets) immediately aft of the fuselage roundels, and the serial number W3760 aft of these, almost under the tailplane.

Incidentally, the spare undercarriage can be used for the Hawk Spitfire 22 which lacks this vital item.

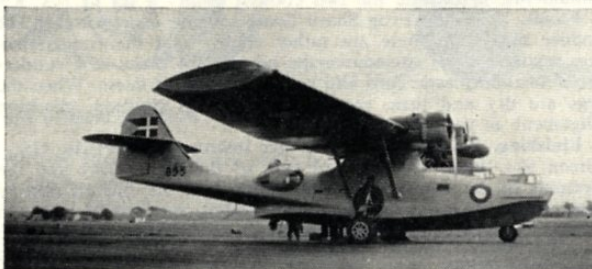
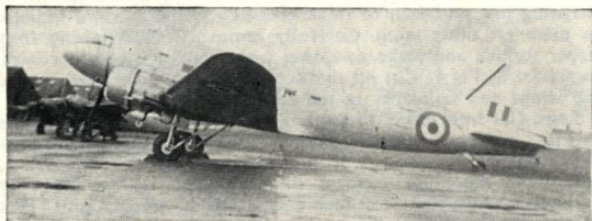
Illustrations on this page show two views of the author's completed model.



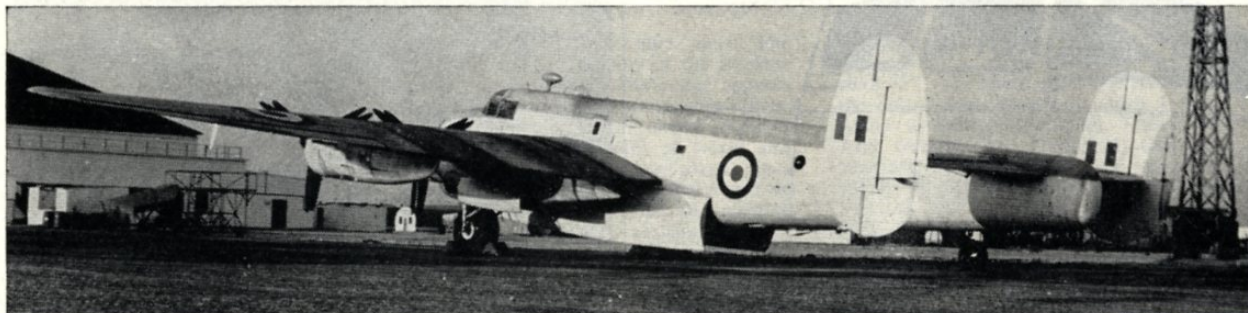
photoPAGE

More rare pictures from readers with captions by **Michael J. F. Bowyer**. A free Airfix kit is awarded for every picture published, but please note that there is usually a delay of some months before publication due to the limited space at our disposal.

Above, right: A camouflaged Vickers Vincent, NZ346, in 1940, though the sender has no further details other than that it is in New Zealand. The two-tone camouflage on upper wing surfaces and top of fuselage is probably dark green and dark earth. Vertical surfaces are light in colour (perhaps yellow for a training machine or Sky). Note the paintwork worn away to bare metal forward of the cockpit. Can anyone supply further details? (Crispin Webster). **Right:** Wellington T10 LP846:FM-AM, silver with yellow bands, unit unknown. **Below, right:** UNRRA Dakota 315672 in grey finish with black letters and trim. **Below:** Silver RAF Dakota TS423 in post-war service, about 1952.



Above: Grey painted PBY-5A Catalina 855 of the Danish Air Force, about 1952. **Upper right:** Mosquito T3 TV969:FM0-A in grey/green/grey finish with white codes, C type roundels and D type fin flash, 1951. Note yellow T band through the 'O'. **Lower right:** Washington WF443:Q, squadron unknown, in 1952, plain finish with coloured fin tip. Last digits of the US serial—6978 are visible behind the Q (all photos by R. O. Hepburn). **Below:** A fine view of Shackleton MR1 VP285 taken in Libya in 1956 and illustrating the dark sea grey and white finish applied to this aircraft when it entered service (George Young).

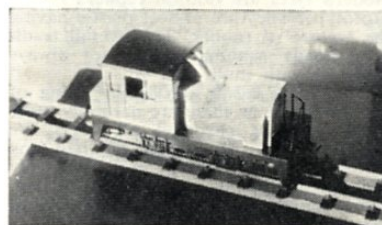


NEW KITS AND MODELS

Rivarossi: O Gauge equipment

BEFORE the last war the most popular of all model railway sizes was O gauge, Hornby and Bassett-Lowke being the major manufacturers of equipment in Britain. Since the war there has been a steady reduction in scales for models, HO, OO, TT, and N all becoming more popular, with O gauge almost disappearing from the model scene as far as commercial mass-production goes. O gauge became a scale for specialists making their own models or getting them custom-made. In the last couple of years there have been signs of a commercial revival, however, the products of Pola-Maxi and Three Aitch, for instance, being featured in these columns in recent months. It may be that the revival of interest comes about for same reason as the increasing interest in large scale plastic kits of aircraft and tanks, for the detail and precision of the modern O gauge model railway item, moulded in plastic, is as pleasing to look upon as, say, the Airfix 1:24 scale aircraft models. Rivarossi, well-known for their HO models, are now producing O gauge models, the largest commercial range as yet available and we have a couple of the items for examination and review. The range consists of American and Continental outline locomotives and stock.

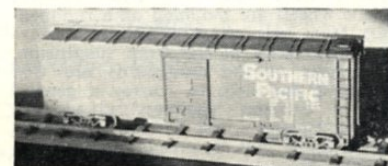
Just to show how inexpensive O gauge can be, we chose the smallest of the Rivarossi locomotives, an American 0-4-0 Plymouth MDT 25 ton switcher (or shunter), a diesel packed with character and pleasingly compact. The UK price of this item is £5.80—cheaper than many OO, HO, or N gauge locomotives. It



comes neatly packaged in a vacuum formed insert and a stout box. The real thing is mainly used on industrial lines though the Rivarossi model is sold in the liveries of three famous American lines, Pennsy, ATSF, and Great Northern, very smartly finished, although we do not think that any of these companies actually had Plymouths in their locomotive rosters. Rivarossi have been quite cunning and also offer the model in red German Railways livery complete with buffers so that it runs quite happily with the Continental stock as well as the American stock which the firm makes. This again is, strictly speaking, bogus, but in theory any railway line could order Plymouth diesel shunters. By the same token any-

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one who favoured British-type railway operations could equally well use the German-livery Plymouth so long as an industrial line was modelled. Shunters of this type are quite common, of course, even though we've never actually heard of a Plymouth being used in Britain or Europe. The model, being American, is, strictly speaking, 1:48 scale; British and Continental O gauge is 1:43 scale (7 mm to 1 foot) and so long as this scale is used

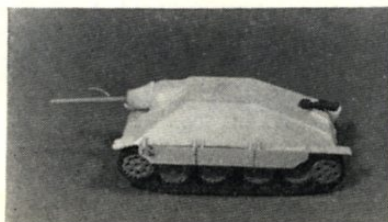


Above: Rivarossi Southern Pacific box car. **Below left:** Plymouth MDT 25 ton switcher, both models are the subject of a review this month.

the Plymouth fits (just) inside the British loading gauge. Though considered a very small locomotive in America, it is surprisingly large when placed alongside British O gauge wagons. The model runs beautifully with a realistic diesel whirr and from seeing them on demonstration layouts the haulage capacity seems impressive. With only a few wagons available and a very short track, we were not able to do more than a little shunting. The motor is fully enclosed and very flexible and we were able to control it down to a slow crawl. Moulding of the body and chassis is first-class, with just a slight mould line down the bonnet which can easily be rubbed down. The cab roof is a snap fit so that a dummy driver could be added—also the cab is a little bare and could well be detailed by the purchaser. The only omissions appeared to be the cab and footplate steps which are shown in catalogue illustrations but are not on the actual model; however, they can be added quite easily from plastic card. At its very modest price this charming little diesel locomotive ought to attract a lot of newcomers to O gauge and it makes an ideal 'first' locomotive for any layout.

As a sample of the rolling stock we had a Southern Pacific 40 ft steel box car which, as a piece of plastic moulding, is even more impressive than the locomotive. It has sliding doors and a beautiful paint finish with tiny detail lettering applied by screen process which looks

Below: 1:76 scale Hetzer fully made up just before painting.



most realistic. All tiny parts, like ladders and foot steps, are to virtually scale thickness and the car is a showpiece in its own right. It costs £2.40. Rivarossi offer several other items of American rolling stock, even more Continental stock, and a total of eleven steam and diesel outline locomotives. There is a big range of track components, too. A catalogue is available for 10p (send a large SAE) from the Rivarossi importers, A. A. Hales Ltd, PO Box 33, Hinckley, Leics, and this illustrates all models available. Wise buying from the range should enable anyone with a hankering for the pleasures of O gauge to get a modest layout going at little more than the price of a OO layout. Space is, of course, a problem, but by using Peco's O gauge track, a garden layout would be feasible, while a small industrial type layout might be the answer for an indoor O gauge layout in a restricted space. Beatties and other leading model shops all stock Rivarossi O gauge equipment. C.O.E.

Heller Morane MS 406 in 1:72 scale

AS mentioned in previous issues, Richard Kohnstam are now distributing the excellent Heller series of kits, and the first of these which we made for review is this model of one of the most famous of France's fighter aircraft. The model contains 43 parts and in general is of a very high standard. Most of the parts fit well, and all are highly detailed, without being heavily marked by the detailing. The different texture of the fabric-covered parts is well moulded, and the parts are all free from flash. Our two main criticisms concern the fit of the wings to the fuselage and the confusing painting details given. The wing joint needed considerable filling, though if care is taken in testing the fit before cement is applied, this can be reduced to a minimum, and certainly does not detract from the appearance of the finished model. A tone drawing is given on the instruction sheet as a guide for the painting of the model, but the shaded areas on the drawing do not correspond to the types of shading given in the key panels, probably due to faulty printing, so calling for some guesswork in the finishing of the model. The Profile, No 147, on this machine gives some help, particularly with regard to the shades of the colours which should be used, and also suggests many more colourful alternative schemes. The kit is good value at 25p. P.W.

Armtec: 1:76 scale Hetzer kit

LAATEST import from the Armtec stable by the distributors Micro Mold Plastics, is a Jagdpanzer 38 Hetzer tank destroyer kit in 1:76 scale. UK price is to be £1.25 and this, in our opinion, is rather a high price to pay for what is basically a vacuum moulding.

Continued on next page

New Kits—continued

although roadwheels, sprockets, idler, exhaust and gun barrels come on a separate sprue as injection moulded items. The whole kit, although accurate dimensionally, lacks the crispness and sharp corners essential to reproduce the Hetzer convincingly, and even the injection moulded items need considerable work to make them acceptable, drilling out the holes in sprockets and idlers and removing a lot of flash. Even after this attention, sprockets and idlers are still not convincing as they should have a pronounced 'dish'. The tracks are vacuum moulded and very poor efforts and it would be best to replace these with something like Airfix Pz IV tracks cut to correct length; then at least you can arrange for one row of the distinctive inside guide 'teeth' to show. The track side skirts are also best replaced with fresh items cut from 10 thou plastic card and a considerable amount of detail must be added to try to make a more worthwhile model. Here a full four view drawing to show this detail should have been included in our view, as the two side and a front view showing colour schemes are totally inadequate.

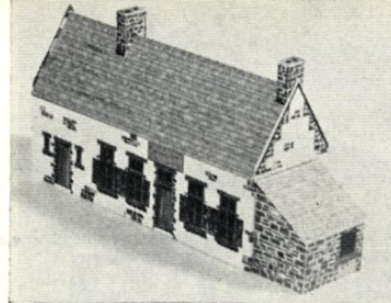
This is rather a disappointing kit which we think could have been better for the asking price of £1.25. G.S.

Midori: Sd Kfz 250 half-track

THE latest half-track kits which have appeared in this country are the Sd Kfz 250/3 and 250/10 produced in the unusual scale of 1:40 by Midori. We built up the Sd Kfz 250/10 version. The full-size vehicle was an armoured development of the Demag 1-ton half-track with the running gear shortened by the deletion of one road wheel on each side. This resulted in a vehicle of compact dimensions and with an overall shape similar to that of the Sd Kfz 251 series. The 250/10 version was a Platoon Leader's vehicle and was armed with the 3.7 cm Pak 35/36 to provide supporting fire. Other weapons which were fitted to this small vehicle were the 2.8 cm sPz B 41, the 2 cm KwK 38 and the short-barrelled 7.5 cm KwK 37 or K51.

The kit is well presented and the box art is less vivid than with some AFV kits. Moulded in tan coloured plastic, the components, on two trees, are contained in a transparent envelope. Moulding is clear and sharp and there is a complete absence of flash. The instruction leaflet in English and Japanese is simple but clear and exhorts the builder to 'Cement all parts in the right positions as shown!' Components are all separately illustrated but not described, nor are there any painting instructions.

Basis of the model is an upper and lower hull which fit together snugly and a pleasing touch is the slightly roughened texture of the upper hull. The interleaved road wheels are correctly and delicately moulded, mounted on steel axles which pass through holes in the lower hull, and, provided the assembly instructions are followed, no problems should result. As this is a small model (almost 4½ inches in length), power, if you really need it, is by a clockwork motor fitted under the bonnet and geared to the driving sprocket as on the full-size vehicle. The tracks, of



Above: La Belle Alliance No 2 in the series of cardboard cutout wargame buildings made by Military Buildings, Watermeadows, Netherhampton, Salisbury, Wilts. Price 75p including postage.

black rubber, are commendably thin and need virtually no stretching to fit them on to the running gear. Front wheels are of the plain disc variety and are shod with rubber tyres with bold tread pattern. These wheels are mounted on a rudimentary front axle which effectively conveys the appearance of the front suspension. The lines of the mudguards are well captured and help to convey a general air of external 'rightness' about this model. Engine access hatches and grilles in the upper hull are crisply moulded and the two front vizors may be cemented in the open or closed position.

Mounted over the driving position is the Pak 35/36 and the kit moulding has a rather heavy appearance. One or two details, such as the gunner's half shield and the shield behind the breech, could be discarded and replaced by components from plastic card. The rather thick gun barrel should also be sanded down to give a more slender, scale appearance. Side container mouldings are also supplied, but these may be deleted if desired as they were not always fitted. A separate rear access door, jerry-can and pioneer tools are also provided. Other exterior details include towing hooks, head and rear lamps, and rear-view mirror—all neatly moulded.

Having achieved a really accurate exterior appearance, the manufacturers then proceed to spoil the whole thing with some hopeless interior detail. This consists of a plate with integral seat mouldings, steering wheel, gear levers and a generator. The seats must really have been designed for midgets and most modellers will probably discard these and build some up from scratch using the Bellona Handbook No 2 Part 2 as a guide. The steering wheel also, which looks as though it was stolen from a racing Mini, is in the incorrect 'normal' position, not inverted as in the real vehicle. Two further points of criticism concern the radio mast which is far too thick but which can soon be remedied with a length of stretched sprue and the MG 34 mounted at the rear of the vehicle. This is a rather crude representation of the actual gun and is merely fixed on a pintle mounting fitting into a hole in the bodywork, not on a swinging arm as it should be. Again, by judicious work, the gun can be improved, but owing to the odd scale, the more accurate Tamiya version cannot be substituted. A suitable mount can be made from stretched sprue.

These things apart, however, this Midori kit makes up into a charmingly realistic little model and when painted should fill a gap in any miniature AFV collection. Price is 70p. L.A.M.

Midori: 1907 Pechino Parigi Italia

A MONG the latest kits for review is a model of the winner of a 1907 classic road race. This event, covering 1,600 kilometres in 21 days, was run over some pretty tough terrain including the crossing of a mountain range. In negotiating the Gobi desert, the Trans-Siberian railway line was used. The hard suspension of those days over railway sleepers must have severely tested the chassis. In fact, by modern standards, it was more of an endurance test than a race. The winning Italia with its crew of three finished in Paris well ahead of its rivals.

We have not seen this particular car featured in model form previously, so the kit holds especial interest.

It is manufactured by the Japanese firm of Midori as a 'Classic' series. The kit of over 100 parts is in pre-coloured plastic and includes electric motor and all metal pieces, shafts, wire, etc. to produce a 1:20 scale working model.

There are a number of novel and interesting features. The motor is housed in its correct place under the bonnet with the gearbox directly attached. The transmission via a universal joint runs under the floorboards to pinion and crown wheel enclosed within a replica of the back axle, providing good bearings for the actual shaft. The batteries (UM3 type, not included) are contained in the side petrol tanks with detachable lids for easy replacement. A neat little on/off switch is located beneath the front seats and is quite simply operated.

Steering is achieved by worm and pinion as on the original, with a good point in that the front axle is in two pieces and the King pins can be cemented to the stub axle assembly before fitting. This arrangement ensures the stub axle is not cemented to the axle beam. The springing by semi-elliptics functions by having a movable link. The artillery type wheels, moulded in one piece, have separate hubs and outer rims, these latter following the practice of the day by detaching the rim to fit a tyre. The model's tyres are faithful replicas of the prototype. They are of soft plastic having the texture of rubber. The overall result is a steady running wheel, not always achieved with multi-part wheels.

One rather fiddly job is the fixing of the rim studs, as these are naturally quite small and are chromed all over. We doubt whether the actual car had any chrome or nickel plating; in fact the only criticism one has of this kit is the plating, which ought to be brass rather than chrome, so far as we can discover.

All the parts are very cleanly moulded with every detail reproduced. The grain of the wood on the dashboard is particularly pleasing. Reference to the illustration on the box lid will indicate that some brush work will considerably enhance the finished appearance. A nice touch is the inclusion of soft plastic straps for bonnet and spare tyres. The instruction manual is very clearly illustrated and although the captions are in Japanese, the English translation is self-explanatory. The builder should have very little difficulty in following the 33 stages to complete this very unique motor car.

We have no hesitation in saying that

Continued on page 284

AIRFIX magazine

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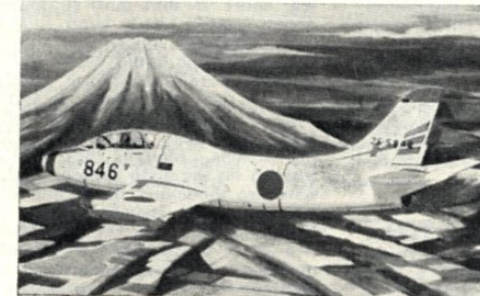
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New Kits—continued

at £2.75 this kit is excellent value. Importers are Riko and the kit can be obtained from all major stockists including the mail order firms advertising in this magazine. *B.L.*

Sutcliffe: Heavy Conversion Kits

READERS may recall seeing an article in our contemporary *Scale Models* last year in which Mr G. Sutcliffe described how he had made an Antonov AN-22 out of expanded polystyrene. Obviously wishing to keep with the large aircraft he has now gone on to produce two sets of vacu-formed conversion kits,



Above: Two new models from Rareplanes are the Northrop A-17A and the Heinkel HE 112B-O. These excellent kits are both priced at 66p and are available from most leading model shops. For anyone trying their hand for the first time with these kits we would suggest the Heinkel as it is the easier to make. Left: Six models made with the aid of Sutcliffe Heavy Conversion Kits.



offering an interesting selection of modelling possibilities.

Although a little crude compared to an injection moulded kit, the vacu-formed units are produced in heavy gauge plastic and are suitable for use as basic shapes on which to add the refinements that come with experience.

The first set contains parts to make a Halifax II, Manchester, Halifax C8, Stirling V, Hereford and Beaufighter II. In the second, which has just been released, there are parts for a York, Liberator transport and Privateer. Each set contains transparencies and vacu-formed parts for the basic changes of fuselage, tail unit or wings.

The sets retail at £1.50 for No 1 and £1.25 for the No 2. The latter mouldings can, however, be bought as separate parts for 50p each.

Mr Sutcliffe is now preparing a 1:72 scale Galaxy kit which should be available in the New Year. Kits can be obtained direct from Mr Sutcliffe at 'The Orchard', Westcombe, Shepton Mallet, Somerset. *A.W.H.*

Tamiya: 1:700 scale Waterline Series

ONE of the latest releases from Tamiya is the Japanese Heavy Cruiser *Suzuya* in 1:700 scale. Part of a new series of waterline models which will cover the entire Japanese fleet, this is a lovely model coming complete with a red plastic bottom that effectively simulates boot-topping, always a hard thing to paint accurately on waterline models. Parts are relatively free of flash and the detail is all we have come to expect from Tamiya; down to and including detachable floats on the scout aircraft carried by most Japanese cruisers. Fit of the parts is perfect and the instructions are



which overcomes any problems some people encounter when suspension units have to be assembled. Options include the 50 mm gun (Ausf M) and 75 mm low velocity gun (Ausf N), and turret and side apron armour. The transfers are of good quality. It would, of course, be possible to convert the model to other variants by suitable detail changes. Price of the Panzer III kit, complete with figures, is £1.85.

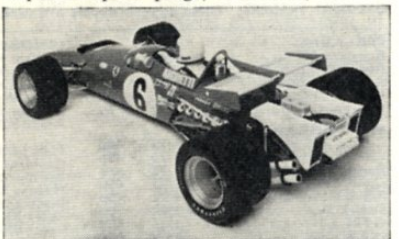
Importers are Riko and the kit should be available from all leading model shops. *C.O.E.*

Tamiya: Ferrari 312/B

THIS latest kit from Tamiya in their 1:12 scale range is the 1970 Ferrari Formula 1 racing car.

The 312 has the new 3-litre 'Boxer' engine, the horizontally opposed 12-cylinder power unit that has succeeded in bringing Ferrari to the fore again in Grand Prix events. In fact, five firsts and five seconds in 15 races makes a highly satisfactory performance. With some modifications the car has been a challenge during 1971. The thoroughness one has come to expect from Tamiya is again exemplified in this kit, which has over 200 parts.

The model's engine is an almost perfect replica of the 'Boxer' unit, with separate spark plugs, fuel lines, etc. An



interesting extra in the kit is two stands on which the car can be assembled as per the prototype.

The model has working coil spring suspension on all four wheels, the hubs are replicas of the original, complete with disc brakes, etc. The wheels, retained by small bolts and nuts, are of the current 'roller skate' type, being shod with the correct pattern Firestone tyre. The model has working rack and pinion steering reproduced as on the actual car. Other features are a detachable nose cowl, fully detailed cockpit and driver figure with detachable harness. The various parts are chrome, aluminium, metallic grey, white and black, with the body nearly identical to the Humbrol 'Ferrari Red' shade.

Besides the adhesive a small screw-driver and tweezers are included. The instruction book is an example for some other manufacturers to follow. It contains a history of Ferrari racing cars with full details of the 312B. The assembly instructions are excellent and are accompanied with close-up photo of the prototype and painting details where needed in association with the particular stage. Also there are two pages devoted to painting and markings.

The model can be completed to represent any one of the teams' cars.

Altogether this is an extremely good model of a modern Formula 1 racing car with the magic of Ferrari incorporated, at £4.40 it is excellent value. *B.L.*

AIRFIX magazine

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(Block caps please) (A1/72)

Letters to the Editor

Invader variants

I RECENTLY bought the new Airfix Invader, and was glad to find that two versions could be made. I set about producing an A-26B (*Miss Mildred*) and used the spare pieces to convert/improve an old Monogram Invader kit to A-26C (*Monie*) standard. However, comparing the armaments provided in the two kits revealed a contradiction, and a cursory inspection of appropriate reference books only made things worse. However, after further delving, I'm sorry to have to point out that the Airfix kit has several minor anomalies.

For the A-26B: The eight-gun nose and integral six-gun wing was first flown on the XA-26D, and retrofitted to the A-26B after VJ-day. In her wartime colours as presented, *Miss Mildred* must have had a six-gun nose, the six guns mounted in two staggered horizontal rows, four guns to starboard and two to port. The A-26B was not fitted with dual controls, hence part 4 can be omitted. Whichever version is chosen, the open bomb-bay doors are without the camera (?) window displayed by the closed alternative, and the bomb-bay seems sadly empty with only half of its rated capacity present.

For the A-26C: This version had a slightly widened fuselage (presumably too small a difference to be detected in 1:72 scale, as it is certainly not visible in photographs) for the fitting of dual controls, but as the co-pilot was also the bombardier, one other of the crew-members must be omitted. It is interesting to note that the crew-list given on the transfer sheet lists a gunner, despite the lack of guns. I have been unable to find any evidence of integral wing-guns on the A-26C, though there seems to be no structural reason to prevent their fit. However, it does have two fixed guns in the nose, presumably present in those peculiar bumps on part 139.

Incidentally, not all A-26Cs had the turret armament suppressed: Putnam's *United States Military Aircraft Since 1909* (F. G. Swanborough) shows an immediately-post-war example with the colourful unit markings typical of the Invader around this time—it is unfortunate that Airfix could not have modelled one of these aircraft—while on the same page is an unarmed black A-26C with underwing package guns and an H2S radome . . . but that would have been asking too much!

Despite these minor and easily-corrected flaws, the Invader is a superb addition to the Airfix range.

A. G. Boak, Kingston-upon-Thames.

S-61N tips

I READ with interest Mr Laird's conversion for a BEA S-61N, for I also built one from studying an actual aircraft and from details from BEA. I must, therefore disagree with parts of Mr Laird's scheme. The colour marked red on the plan on the stabiliser and spon-

CONTRIBUTIONS

Letters to the Editor selected for publication entitle the senders to each receive a free Airfix plastic construction kit, and the publication of photographs from readers is similarly rewarded. As from this issue a new scheme comes into force whereby Airfix Products Ltd award the kits on the following scale:

ONE letter or photograph published is rewarded by any kit from Series 1-6 inclusive. For TWO letters or photographs any one kit up to and including Series 9 can be chosen, or alternatively two kits up to Series 6. For THREE separate contributions (eg, photographs) the entitlement is one kit up to Series 12 or three kits up to Series 6. Readers can make their choice on the special card which we send out after publication. The kits are supplied direct by Airfix Products Ltd.

We receive a large volume of mail from readers; all letters are read and we answer or acknowledge as many as possible provided that a SAE or stamp is included for reply. The Editor cannot accept responsibility for safe keeping of contributions though every care is taken. Opinions expressed by correspondents on this page are their own and do not necessarily reflect the views of the Editor or Airfix Products Ltd.

sons is really an 'orangey' colour. It is matched by Humbrol Railway Enamel Orange with a thin coat of Humbrol Fire Orange on top. The sponsons on the new scheme are this colour all over, not just on top as shown. The rotor blades are a light grey on top. The blue is best matched by Humbrol Sea Blue Gloss HB9 and the grey by Humbrol HU10. Finally, I found the easiest way to make the windows was to block the old ones out with Plastikard and make the new ones by drilling and filing. The clear plastic is cut from old Airfix stands to make a tight press fit to obliterate the need for messy glues. I hope these details may be of help to readers who are going to attempt the conversion.

M. S. Lewis, Portsmouth, Hants.

Horse detailing

FOR those readers who construct and paint Historex figures and, in anticipation of the new Airfix mounted British Hussar in 54 mm scale, may I suggest a very effective and fast means of painting plastic horses.

Using oil paints, which provide an excellent range of natural colours, paint the horse all over. Do not thin the paint but put it on quite thickly straight from the tube, not worrying about covering details. Then, with a paper tissue, lightly wipe over the figure, taking off most of the paint; this will leave a thin coat which will highlight the raised features and shadow naturally. The eyes may then be painted white, the eyeball painted in, then a coat of lacquer or varnish, giving the eye a glazed or wet look. Mane and tail painting and white blazing may be added when the oil paint is dry. Total working time to paint a horse is therefore only about twenty minutes and a very realistic result is produced.

A. L. Playford, Chelmsford, Essex.

Revolutionary colours

THE Airfix set of figures of American Revolutionary War soldiers is one of the best yet, and several different units of the period can be represented, simply by using a different 'colour scheme'. 1st New York Regiment (McDougalls) 1775

Tricorn—black, no 'lace'; coat—mid-blue, with dark red collar, cuffs, and turnbacks, brass buttons; waistcoat—white; trousers—white; stockings—white; gaiters—black; boots black; shoulders straps—white.

6th Pennsylvania Regiment

Tricorn—black, no 'lace'; coat—light blue, with red collar, cuffs, and turnbacks, buttons brass; waistcoat—buff; trousers—buff; stockings—white; gaiters—black; boots—black; shoulder strap—white.

New Hampshire Regiment

Tricorn—black, no 'lace'; coat—dark blue, with red collar, cuffs, and revers, turnbacks white, buttons brass; trousers—buff; stockings—white; gaiters—black; boots—black; shoulder straps—white.

Bedford Minute Men

Tricorn—black with white 'lace'; coat—blue, with white collar, cuffs, and turnbacks, buttons brass; waistcoat—dark bottle-green; trousers—buff; stockings—white; gaiters—black; boots—black; shoulder straps—white.

These are simply a few suggestions for simple variations. With a little 'surgery', an even larger number of variations should be possible, as uniforms of this type were worn from the 1740s to the 1790s, giving a period of 50 years, and five major wars . . . not bad value for 17p!

W. Dunlop, St Abbs, Berwickshire.

Plastic riveting

I HAVE a tip for people who like to incorporate working features into their models. This is to use plastic 'rivets'. These can easily be made by taking a length of Slater's plastic rodding and holding the end near to a hot soldering iron or other source of heat which part melts it. The half-finished rivet is then pushed through holes made in the parts to be joined and the other end of the rod is heated in a similar manner. I found these rivets very handy as substitutes for pins when making the T34 Calliope. If the plastic does not actually touch the soldering iron, a domed end is formed, which is useful for other things, for example: ball mountings for tank bow machine guns, mushroom ventilators, hub-caps, etc.

R. Duerden, Mickleover, Derby.

Useful hints

THE following hints may be of use to other modellers: A good finish for wooden propellers and struts may be produced by giving the parts a first coat of Gloss Light Brown paint (Humbrol No 9), followed by a sparing application of

Dark Wood (Humbrol HM 19), so that the lower coat shows through. The whole may then be finished by varnishing with a mixture of gloss and matt varnish in the proportion 2:3.

Instrument panels are most satisfactory when made from two layers of scraper board, obtainable from artists' suppliers. The top layer has holes drilled to represent the instrument apertures, and is then glued to the backing layer. Instrument detail may then be added with a pin, and finally the 'glass' produced by filling the holes with minute amounts of gloss varnish. This far outstrips the white dot on a black background method, and is simpler than using layers of card and endless coats of paint. The detail can be far crisper as ultra-fine lines can be drawn.

Captain B. M. Burton, Blacon, Chester.

Canadian Hurricane

THE Hurricane in your July Photopage is, in reality, a Canadian Car and Foundry-built Hurricane XII. Its serial number is not 412, which was in fact an Armstrong-Whitworth Atlas, but 5412, the tail of the '5' being just visible behind the pitot tube, which hides the rest of the figure. It was taken on charge July 23, 1942, and served with 135 Squadron RCAF probably at Patricia Bay, British Columbia. It was struck off charge June 30, 1946.

To the best of my knowledge Canadian Hurricane XIIIs rarely had spinners; perhaps they were not fitted as standard equipment. The underlining of code letters was common practice on Canadian-based RCAF aircraft and was quite distinct from the American practice of putting a bar under the individual code letter to show a duplication in coding within a squadron.

Michael C. Johnson, Toronto, Canada.

Transfer hint

I HAVE just looked through the October edition of *Airfix Magazine* and find yet another suggestion for giving transfers that 'natural look'.

I simply use a solution of Resin 'W' instead of the usual water, applied to the area which the transfer is going to occupy.

When the transfer has been applied and excess fluid removed with tissue, it dries completely flat and leaves no sign of clear backing film.

J. Simm, Leyland, Preston.

Window Tips

MAY I congratulate Michael Andress on his series of 009 scenic structures. Of the four models described, my personal favourite is the little signal box. The windows, however, which I made from 20 thou Polyglaze for strength, posed some interesting problems, as this material handles in a completely different manner from opaque plastic card. With this in mind, I would like to take the opportunity of passing on some tips (learned the hard way) in order to stop people making the mistakes I did.

Firstly, marking parts out. The best way of doing this is to scratch the necessary lines on to the sheet with the point of a sharp craft knife blade, leaving a margin between separate parts. This allows parts to be cut out of the sheet and then trimmed to the right size.

Thick Polyglaze has to be cut with a pair of good, sharp scissors to prevent the sheet clouding at the edges, and trimmed by slicing away the excess with a new knife blade. Final trimming can be done with fine sandpaper.

Finally, the window framing: if, like me, you fight shy of the thinned paint/draughtsman's pen method as in the article, framing can be represented by thin strips of painted Sellotape, as described in *How To Go Plastic Modelling*, and then painted with gloss varnish to seal down the Sellotape and to give the windows a glassy shine. For cementing Polyglaze, it is much safer to use tube

adhesive as this is more controllable than liquid cement. This window method can also be used on the 009 engine shed model (*Airfix Magazine*, April edition).

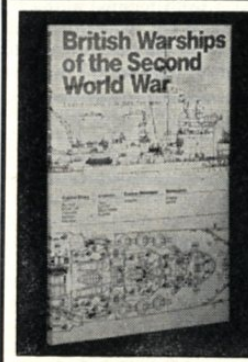
One last point for narrow gauge railway modellers. Continental HO tunnel mouths, although too small for OO, and much too big for N, are exactly right for 4 mm scale narrow gauge stock.

S. C. Leak, Hanham, Bristol.

Bronco detail

THANKS to apparently unavoidable delays in shipment, I have just picked up the October issue of *Airfix Magazine* and, skimming through the first time, came across Mr Munro's letter and photograph of an OV-10A carrying 'UM' tail codes. The squadron which operates this machine is Light Attack Squadron FOUR (VAL-4), flying FAC and RAG support missions in the Mekong Delta region, nicknamed the Black Ponies. I photographed three other Broncos from VAL-4 on February 22, 1969, at NAS North Island, San Diego, just before the squadron finished preparing its aircraft for deployment to SEA; unfortunately, at the time I was using colour only so cannot provide any prints of these. Four OV-10s were left at NZY, being added to the strength of VS-41, a training squadron, for use in conversion training of new pilots; VS-41 has since expanded its OV-10 strength and has gone through at least two major changes in the external colour scheme. The OV-10, like the P-3 Orion and A-5 Vigilante, uses a combination of Air Force manufacturers' code letters and production block numbers with its basic designation; thus, the three I photographed were an OV-10A-NH-30, 155462, UM-3; NH-35, 155473, UM-8; and NH-35, 155475, UM-10. Colour scheme then was overall Marine Field Green with Light Gull Grey undersurfaces; I have since photographed VS-41 in glossy, then matt, olive drab, with the same grey undersurfaces. The mid-span pylons referred to are not stock features, nor have Sidewinders been carried since the manufacturers' demonstrations carried on between North American and Convair; these pylons can be fitted or not, there being a plug for the electrical circuits in the wing itself, the rockets being used for target-marking primarily. Numerous stores packages can be carried at the attachment points, not only on the wing but on the sponsons and the fuselage centreline as well.

Robert L. Trimble, Van Nuys, Calif, USA.



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Model Soldiers—from page 264

blank off both side window spaces in part 6 with pieces of plastic sheet, leaving the centre space open and unglazed. Cement part 6 in place on the front of the locating rib of part 5, then carry out stages 13-27 as shown on the kit instructions sheet. Now cut from .030 inch plastic sheet an additional plate as per Fig 1a and cement this over the bonnet to the front of the dashboard with a shorter piece, Fig 1b attached along the top edge and sloping backwards at an angle of 45°.

Take parts 48 and 49 and score the outsides to represent planking, with plastic strips 2 mm wide fitted at intervals as in Fig 2. Cement parts 48 and 49 along the edges of the lower deck floor to form the body sides. Be sure to line up the rear edges with that of the body floor. Then proceed with stages 37-44 as in the instructions sheet.

Seating is now fitted to the body, and this can be made by cutting strips of .04 inch plastic, 2 mm wide and the full length of the body interior. Five strips should be cut for each side, and these are cemented into place over short lengths laid at right angles to the sides, as in Fig 4. Alternatively, use can be made of the side fenders, parts 120 and 121, by removing the short curved portions forward of the long locating ribs, which results in two lengths of ready made-up seating. The side fenders from two bus kits will be required to provide the seating on both sides of the body, which is rather expensive unless you have the necessary parts available in your spares box. A third solution is to use parts 8 and 11 for the forward seating, and the modified side-fenders for the rear portions. This is quite acceptable, since with the tilt fitted to the body the forward



Above: Rear view of model showing chain attachment points and step detail. Also note new seating arrangements.

seating is less noticeable.

Now cut three pieces of .04 inch plastic sheet as shown in Fig 5, and construct the step for the body rear. Cut the necessary plastic strips to make the hoops to carry the hood or tilt using the dimensions shown in Fig 6, and cement them in place. When they have set thoroughly, the inside of the body and the seats should be painted, before forming the cab head and tilt by covering the hoops with tissue paper or fine linen (I found that part of an old shirt was ideal). It will be found that by stretching the material over the hoops and then applying a liquid adhesive (Airfix or Mekpak) to the outside of the material, allowing it to soak through to the plastic, a satisfactory bond will be achieved. Attach the lower edges of the tilt to the body sides.

Proceed with stages 50-57, 64 and 65, following the kit instructions. If another part 111 is available in your spares box, fit it in a corresponding position on the right-hand side of the lower deck floor, or if necessary build it up from scratch. Next, carry out stages 70, 71, 72 and 74, cementing the front lamps directly to the front of the extended dashboard with 10 mm lengths of 2 mm wide plastic strip fitted beneath them to simulate brackets. Make side-screens by cutting

two pieces of tissue or linen to the sizes shown in Fig 7. These can be shown either rolled or extended, or as I have shown them, with the driver's side extended and the passengers' rolled.

Drill two fine holes in the rear body sides to receive two wire hooks which carry the guard chain (Fig 8). Finally, cut strips of very thin plastic and attach them to the forward edge of the cab hood, with the lower ends secured to the front mudguard brackets, thus representing the hood retaining straps.

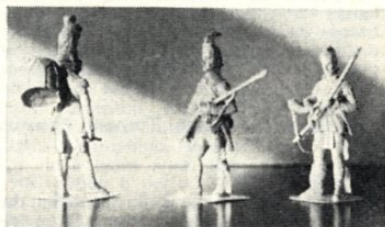
Check that all stages have been correctly carried out, then paint the remainder of the model as per the painting details accompanying this article.

The Airfix 'B' Type bus kit is suitable for conversion to a number of types, including lorries, armoured troop carriers, and even a primitive armoured car, providing the modeller with opportunities to employ them as background support for a wide variety of figures.

COLOURING DETAILS

Body Chassis: Service grey or khaki.
Lettering and numbers: white.
Hood and tilt: khaki with dark brown or black patches.
Hood straps: brown.
Wheels: Service grey or khaki with buff tyres.
Gear and brake levers: steel.
Steering wheel: brown.

Below: Three of the new Lasset 54 mm scale metal figures reviewed but not illustrated in the December issue.



Bombing Colours—from page 263

residence at Steeple Morden, still in Dark Green/Dark Earth/Sky finish with red codes. Aft of the coding they wore white identity letters, JG-S being 18, this number unfortunately blotting out the serial. Others seen that year included WJ-A with red codes and Mk IV LW-Y of a signals unit. For good measure there was sometimes to be seen a Harrow of 271 Squadron ambling on its way, moving fighter squadron personnel or on some similar 'passenger' duty. Some had azure blue under surfaces, others had yellow like K6964 and '6970 which moved 21 Squadron from Methwold in August 1943. Both had red BJ coding and were of the 'Sparrow' type.

When day bombers were transferred to Fighter Command on June 1 the Mosquitoes passed to the Pathfinder force. Some acquired black under surfaces but it seems unlikely that any of the IXs had this in 1943. In March very few of 109's Mk IVs had black under sides but later that year this was a usual feature. Codes were red and a machine with black under surfaces was OT-T:DZ375 (OT forward on both sides) which had only whip aerials like HS-K:DZ425 (HS aft). An unusual companion aircraft on April 21 was HS-A which was black overall. Although it had been decided to delete the feature a year before one of 139's Mosquitoes still had Sky spinners in July 1943, and even when they were on night operations some of 139's Mk IVs retained Sky codes, like XD-M:DZ521 (XD forward on port side aft on starboard when seen on December 4) with 12

yellow bombs painted on her nose. The same day AZ-A (codes as on DZ521) serial DK313 had red codes and black serial on her grey and green finish.

The remaining bombers were the Ventura, Boston and Mitchell. Until their withdrawal the Venturas were camouflaged Dark Green/Dark Earth/Sky with red codes and usually red serials like YH-H:AE730. A less usual example was YH-K when seen in March 1943, for she had black bomb doors and shark's teeth painted along the side of the nose. Many of the Venturas had a red individual letter painted on the perspex nose, outlined yellow in the case of the J on SB-J:AE854 noted April 16, 1943. An example used by 487 Sqn was EG-T:AE713.

Boston IIIs were uncommon by 1943, for the Mk IIIA was in use and these almost all wore the same Dark Green/Dark Grey finish as the Mitchells, with red codes and black serials like BZ371:OM-S and AL280:OM-O, in use August 1943.

Finally there were the Mitchells. Although the first examples arrived mid-1942 it was January before the type went into action, and then disastrously. There were teething troubles and the aeroplane was unsuitable for low level operations. The Mitchells did a lot of flying before getting into their stride in the spring of 1943 when examples in use included FL197:EV-G and FR141:NO-B in Grey-Green finish with red codes and black serials, individual letters being painted on the nose and unit codes ahead of the roundels as on the Bostons.

Michael J. F. Bowyer

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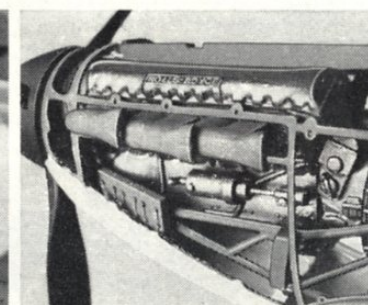


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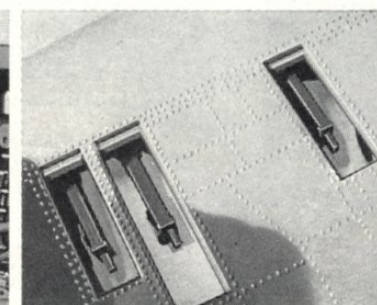
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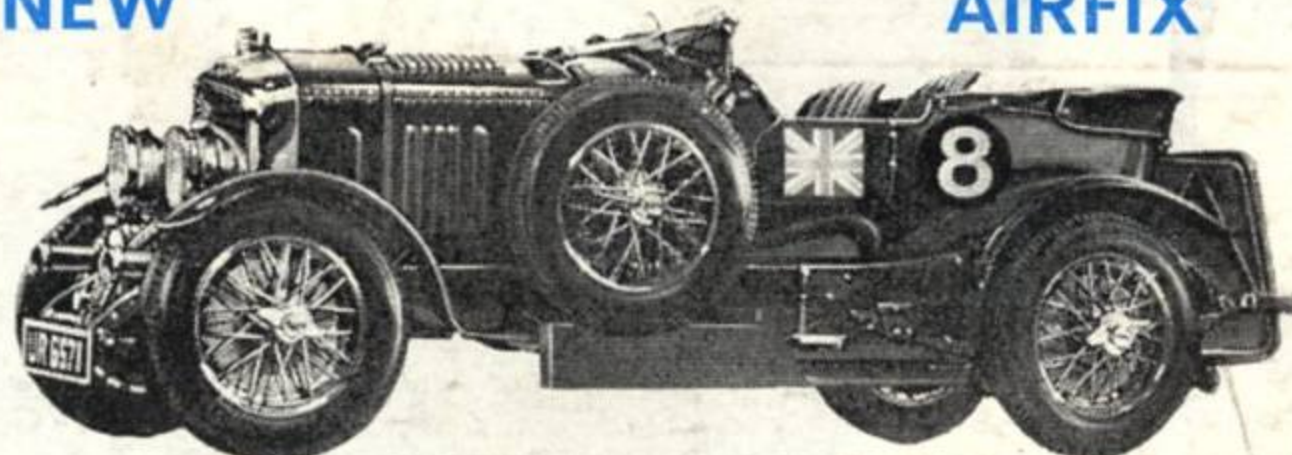
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